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FORTY YEARS
ON THE
PACIFIC

FRANK COFFEE

GIFT OF
HORACE W. CARPENTIER



FORTY YEARS ON THE PACIFIC

UNIV. OF
CALIFORNIA

TO THE
ALASKA



AUTHOR DRIVING TEAM OF HUSKIES, ALASKA

OF
LIFE
FIFTY YEARS ON
THE PACIFIC

CULTURE OF THE

OF REPTILES
PLEASURE

GO
LIFE



THE LIFE OF A MAN
OF THE PACIFIC
STREET, NEW YORK
AL ROBERTSON,
SAN FRANCISCO, CAL.

TO THE
LIBRARY OF

1920

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By FRANK COFFEE

Dedicated

TO THE MEMORY OF MY BELOVED SON, THE LATE

LIEUTENANT FRANK M. COFFEE

AUSTRALIAN IMPERIAL FORCES

KILLED IN ACTION AT GALLIPOLI, NOVEMBER 18 1915

He sleeps in the grave of a hero,
Beneath a mound of earth,
Far from the land of the wattle—
The land that gave him birth.

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CONTENTS

	PAGE
INTRODUCTION	xi
NAVIGATION ON THE PACIFIC	1
VOYAGES ACROSS THE PACIFIC	11
Vancouver to Auckland	11
San Francisco to Sydney	17
Sydney to Vancouver	21
The Pacific Coast of the Northwest	23
Sydney to Canton	27
The Philippines	35
Hong Kong and Canton	38
Foreign Residents in China	45
Indemnities	46
A TRIP THROUGH JAPAN	48
Nagasaki	48
The Geishas	54
Yokohama and Tokyo	58
The Navy and Mercantile Marine of Japan.....	65
The Japanese Abroad	67
Foreign Property Owners and Taxes in Japan.....	68
HONOLULU AND HAWAII	73
Honolulu. A Motor Trip Around the Island of Oahu.	76
Trip to the Volcano of Kilauea	77
Mauna Loa	82
LEPER SETTLEMENT OF MOLOKAI	84
BIRD LIFE OF HAWAII	87
OTHER ISLANDS	89
Easter Island — The Carolines — Norfolk, Pitcairn,	
Lord Howe, and Fanning Islands	89
Norfolk Island	92
Lord Howe Island	93
Wreck of the <i>Aeon</i>	95
NEW CALEDONIA	100

	PAGE
NEW HEBRIDES	103
THE BRITISH SOLOMON ISLANDS	108
THE GILBERT ISLANDS	112
PAPUA OR BRITISH NEW GUINEA	116
DUTCH NEW GUINEA	120
TAHITI	122
TONGA	128
A Quaint Little Kingdom—Shirley Baker—Socialism in Practice	128
SAMOA	136
ROBERT LOUIS STEVENSON—THE FAMOUS HURRICANE ..	145
The Great Samoan Hurricane	149
PAGO PAGO	152
FIJI	161
The Cannibal Isles—Missionaries—American Claim...	161
Suva—Old Customs—The Measles Epidemic—Cotton	167
The Cecile Case	173
NEW ZEALAND	175
POLYNESIAN PASTIMES	184
VOLCANOES	189
Weird Phenomena—Birth of Islands—Krakatoa.....	189
COPRA, SUGAR AND OTHER PRODUCTS	192
KAVA AND TODDY	197
Favorite Forms of "Tipple"	197
MISSIONARIES	200
Mormon Missionaries	203
STRANGE BUT TRUE FISH STORIES	204
Mostly About Sharks and Turtles	204
The Shark and Turtle on Tutuila	210
Fishing in China and Japan	215
PACIFIC CABLE	216
WIRELESS	219
Wireless Stations in the Pacific Ocean	223
ALASKA TELEGRAPH SIGNAL CORPS	224
YUKON TELEGRAPH TRAIL	225
SUBMARINE SIGNALS	227
OIL AND FUEL USED AT SEA	228
Costs Per Day	229

CONTENTS

ix

	PAGE
EXPLANATION OF DIFFERENCE OF TIME	231
RULE OF THE ROAD AT SEA	233
Two Steamships Meeting—Two Steamships Passing	
—Two Steamships Crossing	233
CLASSIFICATION—TONNAGE	234
ALASKA	236
The Land of the Midnight Sun	236
Foxes	248
Mining	253
RECORD MADE BY MARION DREDGE	254
GOLD DISCOVERY IN YUKON TERRITORY	259
Yukon Territory of Canada	260
SEALS IN BEHRING SEA	263
ALASKAN GAME	267
The Reindeer Industry	271
The North's Great Sporting Event	273
Alaska—A \$7,000,000 Purchase	278
Alaska Fishing	279
SHIP SUBSIDIES	280
RANDOM NOTES	283
On Personal Conduct at Sea	283
Native Peculiarities	284
Sea Scapes	285
Medical Pointers	285
Beverages	286
When Entering a Port	286
On Communication	286
Pacific Island Homes	287
Alcohol Aboard	287
What Is a Beachcomber?	288
How Far You Can See	289
Reminders	289
BLACKBIRDING	290
ISLAND RACES	295
SMUGGLING	296
STEWARDS	299
SWEEPS AT SEA	301
THE DAWSON ICE POOL	305

	PAGE
OCEAN CURRENTS	306
AREAS OF COUNTRIES ON THE PACIFIC	307
STRANGE BURIALS	308
CRUISE OF THE <i>Shenandoah</i> —REBEL PRIVATEER.....	311
A \$6,250,000 Dinner	313
WELCOME TO THE AMERICAN FLEET	314
MY VOYAGE IN 1918	317
PACIFIC TRIPS	319
THE PELEW AND CAROLINE ISLANDS (Late German Posses- sions, Now Occupied by Japan)	321
THE MARSHALL ISLANDS	327
AUSTRALIA	332
PAPUA (British New Guinea)	338
GERMAN NEW GUINEA	342
THE STORY OF "BULLY" HAYES	347
MAPS	351
INDEX	361



TWO LITTLE AUSTRALIANS

70 VINI
ABBOZZO

INTRODUCTION

A GOOD many years ago—more than I like to confess—it dawned on me that I was getting too old for the deck sports that enliven a long sea-voyage; so I decided on a new sport for myself: to pass the time in setting down impressions of ocean travel, the places I visited, and the interesting side-lights on life that came to my attention. The first result was a series of letters to friends, the second, a number of newspaper interviews, and finally the present volume.

My original intention was to confine myself to personal experiences, but the more I studied the conditions of the Pacific, its marvelous panorama of countries and peoples, the more fascinated I became with my subject, and it grew far beyond my initial purpose; I felt compelled to take in a wider range, to include general information and jottings that covered a period of more than forty years.

I have sailed other oceans, but the Pacific is the one I know and love the best. The book I offer you is therefore primarily about my favorite ocean, the Pacific, although I wander now and again in my narrative to other waters for example and comparison.

Some of the subjects held up for consideration may not prove of prime interest to all readers, but at least my guiding principle in selecting them has been the knowledge—I venture to claim—of what interests most persons. As an old campaigner, meeting all sorts and conditions of people, and mingling with them as one of the eternal human comedy, I have had unusual opportunities of finding out what the average mind responds to. Hence, I have tried to let common understanding direct my pen.

This work is largely reminiscent, a fact permitting me the widest latitude. As I proceeded to enlarge my scope and

marshal all my varied material, it was borne in on me that matters assumed several aspects when viewed from different angles, and thus the importance of accuracy early impressed itself upon me. As a consequence, not only have I consulted maritime men whom I have met at sea for years, but authorities on Pacific subjects—authorities such as Mr. D. C. Jenkins; Mr. Frank Burnett, of Vancouver; Mr. Percy Allen, of Sydney; Mr. Blacklock, for many years in Samoa; Captain Allen, of the Ellice and Phoenix groups of islands; Mr. T. J. McMahon; Eben Low, of Honolulu; Willie Greig, who knows the North Pacific well, and Mr. Will Lawson.

From sources of this sort I have refreshed my memory. In many cases I have received additional valuable details by talking with old friends whose travels have covered the same courses as my own. To these men—naval officers, ships' captains and officers, engineers, island traders and others—I am deeply indebted. Furthermore, the chapters I give on technical topics, such as wireless, have been gone over by experts; and to these gentlemen I also wish to express my appreciation of their kindly assistance. For some of the illustrations I am indebted to the courtesy of various steamship and railroad companies, Messrs. Baker-Williams, the Honolulu Promotion Committee and to the Honolulu Photo Supply Company.

One feature of the book many readers will get at once, and that is, they will find themselves suddenly transported from one scene to another without warning or preparation, but I hope it will not cause them any discomfort. Let them lay it to the habit of mind engendered in the old traveler by his familiarity and indifference to thousands of miles. An old campaigner like myself thinks nothing of an eight-thousand-mile jump.

It is with considerable diffidence that I submit my book to the public, and I do it only at the insistence of many good friends who have read my letters of travel. Also, I have been consoled by the remark of a well-known New York editor who, when I expressed trepidation as to the possible reception

of my book, said with great emphasis: "I would not give a d—— for a book that was not disliked by somebody!"

But, withal, my experience may be akin to that of Mark Twain. Turning from authorship to publishing, he suffered a rude financial jar. Now, I am a publisher venturing to become an author, and the same sort of rude jolt may be awaiting me. Again, another picture comes to mind. Last summer, while strolling with a friend in Central Park, New York, we had to jump quick to get out of the way of a ninety horse-power automobile. My friend turned and said:

"The man in that car is a publisher."

Not long after, a Ford passed us and my companion pointed out the occupant as a book-binder. Then we met a thoughtful-looking man on foot—he was an author.

At all events, my book will serve the purpose if, even in a small measure, it contributes to the growing interest now apparent in the Pacific and its islands. I have often wondered why more people do not take the trip to the Antipodes and the Orient. Steamship rates are reasonable enough, and the service is high-class. Rich in folklore, in quaint peoples, in the beauty of reef and palm, the islands of the Pacific are certain to charm and enthrall the visitor..

Besides giving an account of my travels, I have included general information relating to the science of navigation, and some hints that I hope will prove useful to the general reader. So many questions have been asked me by prospective travelers about life on board ship, that I feel that these pages will be of practical service to them.

I adopt no pose in the world of letters. What I have written and compiled is largely a book of my impressions—not a history in any sense. And I have told it in my own way, because that was the natural and unstudied thing to do. Whatever may be the reception of my book, I have already been recompensed in the pleasure I have had in putting it together.

THE AUTHOR.

NAVIGATION ON THE PACIFIC.

BEFORE the compass was invented the Pacific Islanders were guided by the winds, currents and stars, by means of which they found their way from one group of islands to another. From all accounts, they were fond of visiting one another, and being of one and the same race—Tahitians, Samoans, Kanakas and Maoris—intercourse was not difficult. Exchange of language, ideas and customs was thus effected and development brought about. How fearless and indifferent to tide and wind they were, and still are, was aptly illustrated at Samoa as late as 1918, when a native girl, her lover and sister, fled from the island of Tokelau, which is some three hundred miles north of Savaii, in a fourteen-foot open boat. Without oars they ran before a gale that was half hurricane and reached Savaii safely, later crossing to Apia, where they were made welcome by the Taupu of the tribe. Some idea of the velocity and ferocity of the wind they encountered may be gathered from the fact that the captain of the small mail steamer which plies between Apia and Pago Pago refused to face the elements. Incidentally, the flight on the wings of the hurricane was another triumph for love, one of the girls fleeing from an objectionable suitor who was backed by her father, a chief in Tokelau.

Native navigation on the Pacific, then, may be said to have been guided by Nature's chart of the skies and the compass of wind and tide. European navigation of this most spacious of oceans is usually dated from Magellan who sailed upon it in 1520. Then came Drake seven years later. Quite a number of explorers cruised about the Pacific in the seventeenth century, discovering Australia, New Zealand and minor islands, and a hundred years later, or, to be exact, in 1770, the

famous Captain Cook made his memorable journey along the eastern coast of Australia.

The date of the beginning of navigation by tradé vessels on the Pacific is hard to place. However, a British fleet of eleven ships under the command of Governor Phillip arrived in Botany Bay on January 19, 1788. La Pérouse,* commissioned by Louis XVI, entered the same bay with two ships, only a few days later—January 24th. It will be seen, therefore, that Australia came very near being a French possession. The first foreign trader to arrive in Sydney was the *Philadelphia*, on November 1, 1792, with Captain Patrickson in command.

Of course, all the foregoing vessels were under sail. The

* A friend, Hon. R. J. B., has written for me an excellent account of La Perouse, the navigator, and from it I select the following authoritative paragraphs:

"Jean François de Galaup, Comte de la Pérouse, was born at Albi, France, on August 23, 1741. He entered the navy and became an admiral. King Louis XVI had always been desirous that France should secure possessions in the Coral Seas. In 1785 he decided to send out an expedition; and two ships were commissioned with La Pérouse in command. The ships were to sail round Cape Horn, to visit Tahiti, the Society Islands, the Friendly Islands, and other island groups, as well as New Caledonia. La Pérouse was then to explore the western shores of New Holland and New Zealand, which had become fabulous lands to the people of Europe after the voyages of Captain James Cook. He was also to sail in the China Seas, and it was expected that the voyage would take about three years. On August 9, 1787, he discovered the Strait of Pérouse, north of Yezo, Japan.

"On January 26, 1788, La Pérouse, with his two ships, the *Boussole* and the *Astrolahe*, was almost within sight of Botany Bay, as Phillip with his fleet was sailing out of the bay to find Sydney Cove. La Pérouse remained several weeks in Botany Bay. In fact, he sailed from Botany Bay on March 10, 1788.

"The fate of himself and crew was unknown for many years. Navigators of all nations were fascinated by the mystery of the cruise of the lost La Pérouse. Expeditions were sent out to find him or traces of his fate. Fifty years later it was finally determined that La Pérouse had met with shipwreck on the island of Mannicola in the New Hebrides Group. Dumont-Durville, in 1828, recognized the remains of anchors, chains, and various other articles belonging to the ships of La Pérouse. It was further ascertained that most of the officers and crew of the *Boussole* and *Astrolahe* were murdered by natives. Relics of La Pérouse and his ill-fated ships were gathered together and brought to France, where they may now be seen at the Marine Museum of the Louvre."



CIRCULAR QUAY, SYDNEY, AUSTRALIA

to you
approved

first steamer that made the trans-Pacific voyage that I find record of, was the *Monumental City*, from Panama to Sydney, in the 'fifties. She put into Tonga for provisions and firewood, and the amazed and fearful natives called her a "fiery sailing ship." Their emotions are not to be wondered at when we remember the bewilderment of our own people at the sight of their first steamer, the *Savannah* (300 tons), that crossed the Atlantic in 1819, traveling from her namesake town to Liverpool in twenty-six days.*

The early efforts of government and steamship companies to establish a line between Australia and America are well worth our notice. In 1869 Colonel Woods, mail commissioner of the New Zealand Government, was told to devise the best route for steamers carrying mails across the Pacific. He recommended establishing a service from Sydney via Wellington and Tahiti, to San Francisco, and claimed that a 2,500-ton steamer could accomplish the journey in twenty-five days under ordinary conditions. Colonel Woods was evidently a sanguine fellow, for the larger and better-equipped passenger ships of 1916 took from twenty-eight to thirty days on this same route.

In 1870 the first San Francisco-to-Australia service was

* When the *Savannah* approached the coast of Ireland, smoke was observed by those on shore, and it was seen to be issuing from the boat itself. The residents concluded that she was on fire. A king's cutter was sent to her relief, and several shots were fired. At length her engines were stopped, and the surprise and excitement of the cutter's crew can well be imagined. Coming into Liverpool, an equally great sensation was caused by the fire-driven *Savannah*. Hundreds of people swarmed down to the water-front to see the extraordinary vessel. This story always reminds me of Sir Walter Raleigh and his first pipe of tobacco in England: his audience thought he was burning and took measures with water to salve him.

Colonel George H. Ham, of the Canadian Pacific Railroad, very kindly sent me this interesting item, in a letter: "It is claimed that the first vessel to cross the Atlantic under steam was the *Royal William*, which sailed from Pictou, Nova Scotia, on August 18, 1853, and reached London, England, in twenty-five days."

The London *Times* of March 31, 1838, states that the first steamer to cross the Atlantic was the *Sirius* (700 tons and 320 H.P.), which sailed from London for New York, March 28, 1838, touching at Cork, and reached her destination April 22nd.

4 FORTY YEARS ON THE PACIFIC

begun. Most trying conditions had to be contended with for many years. To Mr. H. H. Hall, the American consul at Sydney, is credit given for an active part in the creation of this service. He inaugurated a monthly service to cost a thousand pounds a month, payable by the New South Wales and the New Zealand governments. Unfortunately, all parties to the enterprise were suspicious of one another, and there were times when the captain of the ship would not land his mail until the subsidy was paid.

For the service Mr. Hall chartered the old Australian Steamship Navigation Company's boats, the *Rangatiara* and the *Balclutha*, which connected with the *Ajax* at Honolulu. Later, they were replaced by the *City of Melbourne* and the *Wonga Wonga*. The vessels of this line were often forced to burn wood because the Honolulu coal dealers insisted upon cash before they would supply the fuel.

In 1871 an agreement was made to run a line of steamers from San Francisco to Sydney, stopping at Honolulu and New Zealand. Ships of wood, the *Nevada*, *Nebraska* and the *Dacotah*, 2,100 tons each, and the *Moses Taylor*, 1,350 tons, were put in commission on the route. They undertook to make fifteen knots an hour. A flattering description of them appeared at the time in the *San Francisco News of the World*, which set forth the proud facts that the *Nebraska* averaged fifteen knots an hour, and that the staterooms were all double, with doors on either side and ventilators on top. The writer contrasted this magnificence with "the augerholes" (ports) of the *Wonga Wonga*. The mark of progress and inventive genius was upon them! The *Nevada* and her sisters were paddle-steamers, and the trimming of the paddles affected the speed. Thus, when they were heavily laden, the floats choked upon leaving the water, bringing the speed down to eleven knots an hour. After many vicissitudes, these four steamers were withdrawn in 1873.

Nothing daunted, the indefatigable Mr. Hall established a temporary service with the *Mongol* and the *Tartar*, which

were subsequently replaced by the *Mikado* and the *Cyphrenes*. Eventually, the *City of Melbourne* filled the place of the *Mongol*. It is sad to relate that Mr. Hall, together with another steamship pioneer, Mr. Forbes, were fined ten thousand pounds for relinquishing this contract.

Which brings to mind the fact that the efforts of steamship owners to establish mail and passenger service between Australia, New Zealand and America have never received the recognition, let alone reward, to which their enterprise entitled them. For the most part, the service has been comfortable and safe, and as fast as the remuneration warranted. Speaking from an experience of forty-five years of ocean travel, much of which has been on the Pacific, I am able to say that during my time there has been only one passenger and mail steamer in the trans-equatorial Pacific trade between America and Australia lost by shipwreck, and none by fire. With that one exception, no serious disaster of any kind has occurred in this trade.

Also, I may note in passing, that the rates were reasonable and, most of the time, the seas were smooth—indeed, enjoyably so. It is one of our human weaknesses to remember one stormy voyage longer than a dozen tranquil trips, and we never forget to refer to our trying experience. The longest voyage I made was from San Francisco to Sydney. It took thirty-two days, but we reached port none the worse for a month of salt water. I was going to give the name of the ship making this momentous journey, but the owner modestly censored it.

This record of safety I have touched upon is certainly a high tribute to the captains and officers engaged in the trade. I have known nearly all the captains on the trans-equatorial Pacific since 1878, and I always felt safer in their care at sea than on any train overground or underground. These officers spent their early lives on sailing vessels, which gave them the experience to handle any situation and cope with unforeseen problems. It is singular that their manifold responsibilities

are so little appreciated by passengers. For instance, a passenger might protest against a captain putting to sea in wicked weather, not realizing that he must, to satisfy the owner of the ship, who is obligated by the terms of his mail contract.

To return to the one shipwreck mentioned above: It was that of the *Maitai* at Raratonga, in the Cook group of islands. She drifted on a reef while trying to pick up an anchor. There was no loss of life. Evil rumor seemed to follow the *Maitai* from San Francisco, for she was reported to have bumped on a rock when leaving. But people smiled and said: "You can't sink her."

The *Maitai*, or *Miowere*, as she was called when James Huddart owned her, was built in 1892, and until she met her fate at Raratonga had led a charmed career. To use a sailor's expression, she tried to go overland to Honolulu in 1893, and got stuck fast on the rocks, where she remained several weeks. After this adventure she went to England to be overhauled. While there she took a party of excursionists to Norway for a glimpse of the midnight sun. Again, she ran ashore north of Bergen, but later was salvaged.

An old Sydney journalist, the late John Haynes, M.P., who was on the *News* in the 'seventies, described to me the arrival of the first passenger boat from America. He said it reminded him of Noah's Ark. Her entry into the trans-Pacific trade aroused jealousy in the breasts of many people, who thought that the new line would interfere with the P. & O. steamship service, and, furthermore, by bringing Australia into closer relationship with the wide-awake United States weaken the ties that bound the Colonies to Great Britain. But it proved quite otherwise. The service to America became popular. It was found, for one thing, that news could be obtained from England via America in three weeks' less time than by the P. & O. boats; and one of the many pleasant results of the new traffic was the introduction into Australia of all sorts of modern American labor-saving devices. After the full value of the line had become recog-

nized it was easy for a Sydney reporter, who was a good oarsman as well, to get a job on a paper, for by rowing to the Heads to meet these Frisco ships, he might get the latest American newspapers.

While on the subject of Pacific navigation, it is pertinent to set down in this place a method of what I may term echo-seamanship that greatly interested me on the Pacific coast of the United States and Canada. This unique form of navigation I witnessed in Puget Sound and the Gulf of Georgia, which are noted for the numberless islands in their waters. On the voyage the ship is seldom on the open sea, and the going is smooth. But sometimes in Spring and Autumn Puget Sound, the Gulf of Georgia and the waters between them and Alaska are fog enwrapped. In Summer, too, occasionally, a forest fire will contribute a huge pall of smoke to add to the dangers and difficulties of navigation. Between Victoria, Seattle and Vancouver large ships from Australia and the Orient must plow their way over this route at all hours and seasons. The navigators, nevertheless, have so accustomed themselves to finding their way by echo that neither fog nor smoke-bank can interrupt their course. At certain periods of the year rain, snow and wind increase the hardships.

To beat the elements at their worst the officer on watch must, first of all, know the time the engineer is making. Of course, he must possess excellent hearing and an accurate measurement faculty, together with a *qui vive* alertness that is attuned to the slightest variation. Not for an instant must he forget that sound travels a mile in four seconds, and his reckoning must be absolute. The whistle is tooted frequently, and the captain must gauge his position by the echo-return just how far he is from rocks. There are some very narrow passages, and all the skill of the captain is called into play. There is a large amount of iron in the rocks contiguous to the shore which demagnetizes the compass, making it unreliable. For that reason, on board some of the ships, the use of the

magnetic compass has been discontinued, and the gyroscopic compass is used instead.*

Naturally, the aural sense of a pilot in these fog and smoke blanketed waters becomes abnormally acute, which will likely prove of great assistance to him in other regions of the world. This was demonstrated in the experience of Lieutenant-Commander Barney L. Johnston. Johnston acquired his skill in the whistle-echo system through years of work on the British Columbia coast where the fast express ships of the Canadian Pacific Railroad and the Grand Trunk Railroad are navigated in all seasons, no matter what the condition of the weather, and they must reach their destination without loss of time. At one time he was skipper of the Grand Trunk Railroad steamship *Prince Rupert* out of Vancouver, and at a later period he was one of the Vancouver pilots. In 1915 he took one of the Canadian-built submarines from Montreal across the Atlantic. Leaving the Canadian service, he was given a lieutenant's commission in the Royal Naval Reserve, in command of the British submarine H-8. When in the North Sea, he struck a mine which blew off the forward end of his craft. Luckily, the bulkhead held, and after resting on the bottom, to effect repairs, he managed to grope his way back to the English coast; where, caught in a fog, he navigated into port by the method of whistle-echo from the cliffs on shore. As a result of this exploit, he was made lieutenant-commander of his new ship, the "D. S."

So much for the whistle-echo and its effect on at least one man's destiny.

Generally speaking, the conditions on the Pacific coast

* The echo is a source of many surprises, and a good yarn is told of Captain Sid Phillips, a Sydney skipper who, by the way, was born on board a ship in Sydney Harbor. It appears that a young couple who were traveling between Victoria and Vancouver were up forward under the bridge. Every time the whistle blew the girl would giggle, and this served to distract the captain's attention and interfere with the echo he was trying to concentrate upon. At last he became annoyed and yelled out from the bridge:

"Will you stop your —— noise, so I can hear?"

have many advantages for those who follow the sea. Navigation here is not so hazardous as in numerous places in the same latitude along the Atlantic coast. Owing to small rise of the tide on the Pacific coast and freedom from ice, passengers and cargo can be handled at all ports night and day throughout the year. As a contrast, take the Bay of Fundy, on the Atlantic side of the continent, which is enwrapped in fog throughout the greater part of the year, and where the tides rise and fall in such extraordinary fashion. At St. John, N. B., the tide has a variation of twenty-seven feet, and the reader can easily figure out the difficulties of loading ship in these eccentric waters. The Bay of Fundy separates Nova Scotia from New Brunswick, where at Moncton, at the head of the bay, the inflow of the spring tide is called "the bore," and rushes in at a height of five feet and travels eight miles an hour. Near this point is situated Cape Blomedin, which derives its name from "blow me down," as the wind sweeps around there at a terrific rate. Incidentally, I have picked up amethysts at this cape. At the head of this tempestuous bay is Minas Basin, where, at the point of Noel Bay, the tide rises fifty feet. In passing, I might mention that there are three other world-famous places where the tide rises to this height: At Broome, on the west coast of Australia, at Honan, 1,100 miles up the Yangzekiang River, in China, and at Chepstow, on the Wye, England.

Crossing the peninsula of Nova Scotia, fifty miles due east of Minas Basin,* at Halifax, on the Atlantic, the tide rises and falls only five feet, but to the north of Nova Scotia, in the Gulf of St. Lawrence, fogs and icebergs make navigation both dangerous and difficult.

Before we leave these waters and get back to our proper environment, the Pacific, permit me to record the romance in the early life of Captain Kughan, of the Oceanic steamer, *Sierra*, in the Pacific trade. With his parents, when a child,

* On the south shore of Minas Basin is the station of Grand Pré, the scene of Longfellow's "Evangeline."

10 FORTY YEARS ON THE PACIFIC

he was wrecked on the brig *Maggie*, in the Straits of Canso, where the tide runs at fifteen knots. He was rescued from a cake of ice and rolled in a blanket. Like all Prince Edward Islanders, he was a sturdy youth. Having reached the age of fourteen, he, together with other ambitious and daring boys, repaired and launched the *Maggie* and turned her into a floating cold-storage plant. She was loaded with frozen turkeys, geese, ducks and other poultry, and with that delectable cargo the *Maggie* was headed for St. John, Newfoundland, where the entire load of fowl was sold over the ship's side to the residents of the town, at a good profit.

I have told of some of the difficulties of salt water navigation, but these troubles are by no means confined to the seas. In 1872, on the Ohio River, between Pittsburgh and Cincinnati, when I was working as a newspaper compositor, I traveled on steamboats when the water was so low in the Summer-time that these flat-bottomed boats could travel only early in the morning at the time the heavy dew was on the bed of the river! This is related at the risk of giving readers the impression that I have been perusing the "Arabian Nights."

However this may be, let us get back to our marvelous Pacific from which we have wandered far too long.

VOYAGES ACROSS THE PACIFIC

VANCOUVER TO AUCKLAND

IN keeping notes of my many voyages across the Pacific I have been able to collect odds and ends of information that are quaint, amusing and more or less valuable. It is interesting to contrast, for instance, the present luxuries of travel with the primitive simplicities of my first voyage on this ocean in 1878, which I made at the instance of Mr. J. W. Lyon. Then I was berthed on the old three-thousand ton *Zealandia*, from San Francisco, on which whale oil was burned in the lamps, and these extinguished at eleven o'clock. Now, we have electric light, first-class provisions in cold storage, large canvas tanks on deck for swimming, electric fans throughout the ship, cabins de luxe with private baths and laundry—in short, everything has improved for tropical traveling, including the temperature, which ranges from 77 to 85 degrees in the tropics of the Pacific.

I select some of the jottings from my note-books on a trip from Vancouver to Auckland in the *Makura* in November, 1913.

We left under the command of Captain Sid Phillips, and steamed through the outward passage to Victoria. The island scenery through Puget Sound is very beautiful, with unexpected nooks tucked away amid forests of luxuriant growth. After a stop of three hours at Victoria we continued our voyage to Honolulu. With the exception of one day, when head-winds emptied the saloon of sea-sick passengers, the sea was untroubled.

The nine hours' stop at Honolulu is the pleasantest kind of break in the trans-Pacific journey. Indeed, that delightful spot is the pearl of the Pacific, the place to which good Amer-

icans ought to wish to go when they die. They would if they had any idea of its colorful charm.

It is usual for strangers approaching Honolulu to express dread of the heat ashore. No greater misapprehension could exist, for the climate is ideal, the thermometer registering from 55 to 85 degrees throughout the year. After these fearful passengers have spent a day in Honolulu and its environs it is a pleasure to listen to their enthusiastic comments on their return to the vessel at night. They fairly bubble with delight at the details of the picture that has been revealed to them during the day.

I find that nearly all travelers who are about to experience the tropics for the first time have a dread of the expected hot weather they are to suffer. But the tropical heat in Mid-Pacific is not severe. On this voyage of the *Makura* it has been only 84 degrees so far. I have seen it as low as 77 and 79 degrees on different occasions. Trade winds afford blessed relief and often continue while one is in the tropics. Besides, aboardship, it must be remembered that the motion of sailing will create a breeze which could not be obtained on shore.

Most of the passengers on English ships dress for dinner, and in consequence money spent on a couple of white duck mess (Eton) jackets and white vests will guarantee a lot of comfort on a trip through the tropics. Travelers from the United States and Canada should provide themselves with three different weights of clothing, as they will undergo many varying temperatures.

Speaking of dressing for dinner reminds me that an English company trading between London and Yokohama and Australia almost insists upon saloon passengers donning the conventional garb for the chief meal of the day. I know of a case where a chap joined us at Fremantle, West Australia, and appeared at dinner in an ordinary tweed suit. Thereupon the captain sent a steward to him with his compliments and requested that he appear in "gentlemanly attire." On one voyage between Yokohama and Ceylon the captain sent a

request to two saloon passengers, who were dining in ordinary everyday attire, to be good enough to retire to their state-rooms and finish dinner there. It may be pointed out, however, that a man can travel round the world with a tweed and a dress suit.

Before embarking on a sea voyage, ladies should arrange their wardrobe so as to have quick access to their most ravishing costumes, because the rivalry and criticism on board are keen, and the taste displayed equal to that met with in the biggest drawing-rooms and hotels.

There is plenty of time, while the ship plows smoothly through the Tropics, for dressing, eating, dancing and flirting. Many world travelers are met on the Pacific, and wide range of fashions compete for supremacy.

Up-to-date and down-to-limit dresses are noticeable, some with little more than shoe strings across the shoulders. In fact, a tendency appears toward rivaling the raiment worn by the Dusky Island Maidens.

Bulletins were posted daily on board the *Makura*, giving news received by wireless from both San Francisco and Honolulu stations. We were always eager to learn the latest event, for the daily-paper habit is one that stays with you to the most remote places. Wireless meets the need in mid-ocean.

To make time pass swiftly at sea all sorts of amusements are devised by individuals and committees. One of the best on this voyage was a fancy-dress ball. It brought plenty of excitement and merriment.

Three of our passengers were members of the Circumnavigator's Club—Mr. Paterson, of Melbourne, Pete Friend, of Vancouver, and myself. The qualification for joining this club is that the candidate must have circumnavigated the globe, and be nominated by three members. The idea of such a club originated with Mr. J. H. Birch, of New Jersey.

When crossing the equator at the 180th meridian of longi-

tude, the three members of the club aboard the *Makura* gave a dinner to four new candidates for membership: Mr. C. Holdsworth, general manager of the Union Steamship Company, of New Zealand, Mr. Fred Johnson, U. S. A., Mr. E. Hollingdale, electrician, of Sydney, and Mr. W. R. Davis, of Auckland, New Zealand. Flowers were scarce, but the tables were decorated with the flags of Australia, New Zealand, Canada and the United States; and the dinner supplied by Chief Steward Waller would have done credit to the caterer of Epicurus.

As we drop a day out of our lives when traveling west across the 180th meridian, we had to date our invitations for the 13th-14th October. Incidentally, our Chief Engineer Peterson lost a birthday because of dropping the day, and thus he gained a year, figuratively speaking. Had we been going east we would have had a week of eight days, duplicating the day we crossed the 180th meridian.

Much curiosity is displayed by travelers in going over this imaginary line of the earth's surface, and our passengers on this occasion were no exception. There seems to be an idea that some phenomena will mark the 180th meridian. The *Makura* crossed in the night when eyes were useless to detect any change in water, air or sky, but one lady vowed that she felt a slight bump when crossing. She was evidently as sensitive as the princess who, sleeping on seven mattresses, was bruised by the pea under the bottom one!

Strange experiences are met with by traders at the 180th meridian, however. One schooner captain, traveling east on a Sunday, in east longitude, dropped anchor here and went ashore for the purpose of doing business with the natives. He encountered some missionaries resident there with sufficient influence to prevent the natives from trading on Sunday. Irritated, he hoisted sail and traveled eastward, and the next day dropped anchor on the eastern side of the 180th meridian, in west longitude, and encountered another Sunday! Going ashore, he found to his chagrin that the missionaries had edu-

cated the natives against work on Sunday on this island, too. Although badly in need of fruit and other foodstuff, he was compelled to bow to the order of the day, literally, and wait until the next sun brought a Monday at last. Those who have read Poe's "Three Sundays in a Week" will recall to what ingenious use he put the 180th meridian.

Another anecdote of the kind is worth tabulating. Not so very long ago a unique labor dispute occurred at the 180th meridian. As is well known, the Seaman's Union is particularly strong in New Zealand. Among other things, overtime is demanded by a crew at sea for working on Sunday. Now, a New Zealand steamer was on a voyage from Wellington to San Francisco, via Raratonga and Tahiti. The 180th meridian was crossed on a Sabbath off the east coast of New Zealand. As we have already seen, the next day would be reckoned as Sunday, so that the time would correspond with the chronology in west longitude. Embracing the opportunity, the sailors struck for two Sundays' overtime, and appealed to the Arbitration Courts of New Zealand. The judge admitted that the nautical position was a puzzle to him, so he called for experienced navigators to give evidence. After hearing all, the magistrate decided to give the complaining sailors one Sunday's overtime.

While we are on the equator, let us note an interesting fact. At the equator and south of it, the Southern Cross is observable in the sky all year. North of the equator, to about latitude 27, it is visible, in clear weather, from about seven P. M. to midnight, during the months of April, May and June. During January, February and March it is visible north of the equator between midnight and four A. M. For the other six months it is not observable except near the equator, because it is on the meridian in daylight.

The *Makura* steamed through the islands of the Fiji group, and we stopped twenty-two hours at the capital, Suva, where cabs and taxis were obtained for hire, "to see the sights." A cricket match was played between a Suva club

and an eleven selected from our passengers. The match resulted in a score of 128 to 28 in favor of the local team.

At Suva and Honolulu the natives swim around the steamer, diving for the silver coins thrown overboard by passengers. It is rare sport. The late Hon. "Jack" Want, a popular Sydney barrister, used to tell a good story of a confrère who nearly lost his life once leaning over the ship's side at such a moment. He was so fond of fees, "Jack" said, that he had to be restrained from jumping in among the native swimmers to get a share of the silver thrown in the water.

Fijians do not take kindly to hard work, and in consequence many thousands of natives of India are imported to cultivate the crops. The population of the Fiji Islands is 87,000 natives and 90,000 Indians. A governor is appointed by the British parliament. He receives three thousand pounds a year. The total revenue is £240,000 annually.

The future of the Fijian Islands is described as uncertain, owing to the Indian Government blocking the importation of industrial labor—the contracts of the present laborers expire in 1921.

The natives are a happy lot, and they do not worry so long as they have enough to eat. Elephantiasis prevails among them, as it does in most islands of the Pacific. They respect the white man, which cannot be said of many aboriginal races. Fijians cannot stand the effects of liquor, and any person selling them alcoholic drinks is liable to a fine of fifty pounds.

The day before we arrived at Suva, we sighted several small islands, among them Fortuna and Alofa, which are in the French Protectorate, the resident governor being located at Wallis, a day's steam to the northeast.

Leaving Suva, we headed for New Zealand. Owing to smallpox in Sydney, nearly all of the *Makura's* passengers had to be vaccinated, which created a windfall for the ship's doctor. Which brings to mind that, until quite recently, the medico on board ship has been underpaid, a deep-sea fireman receiving within five dollars a month of the physician's re-



HONOLULU, HAWAIIAN ISLANDS



ON THE BEACH AT WAIKIKI, DIAMOND HEAD IN
BACKGROUND, HONOLULU



ROYAL PALM AVENUE, HONOLULU

muneration. I am glad to record that doctors are now allowed to charge passengers for attendance when their services have not been made necessary by any accident or illness due to the ship.

SAN FRANCISCO TO SYDNEY

From another book of jottings, I gather the following notes of a voyage on the *Sonoma*, in October, 1914.

The residents of California get more pleasure out of life than almost any other people of the world. They are cheerful and hospitable. Incidentally, they are not slow about saying that if Columbus had landed on the Pacific coast of America first, New York would still be a cow pasture. But that is all they seem to have against Manhattan, though it is another way of saying Columbus made a mistake.

California is a very fertile State, as every one knows, and its people have displayed remarkable energy and intelligence in developing the natural resources.

When passing through the Golden Gate, Dr. Clarke, the ship's physician, pointed out Fort Baker, where are mounted 16-inch guns for the protection of the port. It is said that so terrible is the concussion of these guns that when practice-fire is contemplated, three weeks notice has to be given to the large poultry farmers at Petaluma, north of San Francisco, as the concussion would destroy the generating power of the eggs. Petaluma is the largest hen-producing district in America, and some of the incubators have a capacity of seven thousand eggs.

Leaving the Golden Gate behind, and passing the Farallon rocks or islands, about thirty miles to the southwest, we proceeded on our voyage to Honolulu, occupying five days and eighteen hours. The trip was uneventful, with the exception that we passed the *Sierra*, coming from Honolulu. Captain Trask exchanged wireless messages with Captain Houdlette of the *Sierra*, who sent his regards to me, but warned Captain Trask that if he had any oranges on board, he had

better hide them from Coffee, who would be sure to eat the supply, if he got his hands on it. Years ago I had traveled with Captain Houdlette and he knew this weakness of mine, but my appetite for oranges was nothing compared with the way he could devour alligator pears.

Some time later, Captain Trask's seamanship was tested in this trade when the *Sonoma* was two hundred miles from the Australian coast in February, 1919. It was discovered that something had gone wrong with the port propeller, but the nature of the trouble could not be ascertained from the deck. The vessel was stopped and a small boat lowered over the side with Captain Trask in it. Twice he dove under the propeller before he could locate the cause of the accident, which was that a line had become entangled in the struts. There was considerable difficulty in cutting it loose. A heavy sea was running and a number of sharks were swimming about; but Captain Trask had had too many experiences with sharks afloat and ashore to let them interfere with his task. However, owing to the condition of the propeller, he decided to return to Sydney for repairs, which caused a delay of two days in the schedule. So pleased were the passengers of the *Sonoma* with his seamanship that they made Captain Trask a present of a silver coffee service.

Speaking about Captain Houdlette, reminds me of an event which took place about 1906. At that time, shortly after leaving Honolulu, bound north, I saw the Pacific Mail Steamer *Manchuria* (18,000 tons) ashore, just north of Makapuu Point. On the same night the American Transport *Sherman*, from the Philippines, ran ashore on the western side of the island. The *Sherman* was easily gotten out of its plight and the *Manchuria* was subsequently floated. But the day this was brought about, the directors of the Pacific Mail Steamship Company received a cable, saying that the *Mongolia*, which was a sister ship to the *Manchuria*, had also gone ashore on Midway Island, an American cable station, while on her way from Japan. The accidents to these two ships



BUSINESS DISTRICT, SAN FRANCISCO.
A STREET IN LOS ANGELES

occurring about the same time and in the same latitude created considerable discussion, and various causes were assigned. It is a singular coincidence that only a few hours before, the Valparaiso earthquake had taken place and some navigators claimed that a tremor spread along the bed of the Pacific, causing widespread disturbances. It was at this time that one of these disturbing currents took Captain Houdlette of the *Sierra* some thirty-nine miles out of his course to the northwest. Certainly the earthquake upheaval at Valparaiso had far-reaching effects.

People who do not live much on the sea are often puzzled to understand why navigators make the Great Circle between ports in the North and South Pacific or Atlantic, hence, an explanation and description of the route between the Orient and America may be of interest to many of my readers. A ship sailing about due east from Yokohama to San Francisco would travel 4,700 miles. By sailing the Great Circle—which means a northeasterly course to 50 degrees north latitude near the Aleutian Islands, where she strikes the 170th meridian of longitude and then southeast to San Francisco—she covers 4,533 miles, thus saving about 167 miles. The distance from Yokohama to San Francisco, via Honolulu, is 5,545 miles. The time consumed in traveling this distance is ordinarily seventeen days.

To understand the Great Circle, take a string, draw it tight around a lemon. Now, move the string up and down, and this will illustrate the point I am trying to make about sailing the Great Circle. Capetown and Adelaide are 38 degrees south latitude. Vessels from Capetown to Australia, however, make this Great Circle by steaming south to latitude 50 degrees. To elucidate further, I may remind the reader that there are sixty miles in a degree of latitude, but only at the equator is there this distance in a degree of longitude, which tapers to zero at the poles. It must also be remembered that sixty nautical miles are equivalent to sixty-nine land miles.

On a voyage in 1898, when we had reached the line of the

equator, I saw Captain Carey turn the *Moana* in a short space, when she was making fourteen knots, and rescue, in twenty minutes, Boatswain Robinson, who had fallen overboard. Robinson had been loosening one of the guys on the foregaff and had caught on the head of a davit when he fell. A big school of sharks was rapidly approaching the life-boat when he was rescued and pulled on board ship. I never saw so many sharks at once, except off the Fanning Islands. Robinson was a devil-may-care sort of fellow. When asked what he would have done if he had not been rescued, he remarked: "I could have swam about and waited for the next ship." He evidently had great faith in his ability as a fish, as the next ship was due in three weeks.

After the excitement of the man overboard and sharks had cooled down, Captain Carey told me some of his early experiences. It appears that he ran away from Cape Cod to sea, on board a whaler, at the eager age of fourteen. He went ashore on Chatham Island, off New Zealand, and stayed there, failing to turn up at the ship when he should. Later on he joined up with another whaler. On one occasion, while his boat's crew was trying to capture a whale, the line broke and the whale made off, harpoon and all. This harpoon had been made by a celebrated manufacturer, who stamped, dated and guaranteed all of his instruments. Many years later, when Captain Carey had grown to manhood, he put into Apia, Samoa, when the natives happened to be cutting up a bull whale, that had been washed ashore. In the whale was found the harpoon that had been lost by the whaling boat's crew when Captain Carey was a boy.

Last week a party of passengers in the second saloon were sitting on deck under my window, indulging in heated arguments over the merits and demerits of various vessels. Among other assertions I overheard were statements that the food in the second saloons on certain boats was as good as that in the first saloon on a rival line. The man making the assertion had never traveled first cabin on either line, so he knew noth-



BUFFALOES AT BANFF, B. C.



SALMON LEAPING FALLS, KETCHIKAN, TO REACH
THEIR SPAWNING GROUNDS.



SEALS ON THE ROCKS AT SAN FRANCISCO.



BAMFIELD, CANADIAN TERMINUS OF PACIFIC CABLE

ing about the quality of the food served there. As a general thing, you cannot get food on a dining-car or in a first class hotel equal to that on first class steamers for less than three or four dollars a day; besides, all chief stewards I have met will cheerfully supply anything obtainable, even though it may not be on the regular bill of fare. As a matter of fact, one can live as cheaply forty or fifty days on the Pacific as in the best hotels in London or New York.

SYDNEY TO VANCOUVER

We left Sydney on July 6, 1916, on the Steamship *Makura*, with two hundred passengers in the saloon, and on Sunday, about noontime, we sighted the Islands of Three Kings, to the north of us; Cape Maria Van Diemen, New Zealand, to the south. It was at the Three Kings that the Steamship *Elingamite* was wrecked, in 1902, and a number of lives lost, together with a large number of gold sovereigns.

Two syndicates were formed to salve the wreck and they were successful in obtaining a great deal of treasure through the work of their divers.

In connection with the wreck of the *Elingamite*, a great wrong was inflicted on the commander, Captain Atwood, who had his certificate taken away. This was about 1901, I think. A fresh survey of these waters was made, and it was discovered that the islands referred to were three miles out of position, as shown on the British Admiralty's charts. Thereupon Captain Atwood's certificate was returned to him by the New Zealand Pilot Board and he received compensation for the injury done him.

From Sydney to Auckland we had two troupes of vaudeville artists on board, from the Tivoli (Hugh McIntosh) and National (Ben Fuller) theaters, and needless to say there was plenty of gaiety en route. At Auckland about one hundred and fifty passengers disembarked and we took on about sixty more.

A hitch in our departure occurred, and inquiry revealed

the fact that some firemen were scheduled to come on board, and we could not sail until they arrived. The Firemen's Union requires a certain number of men on each watch while at sea, and it insists that ships shall not depart until the entire number are on board. If they go to sea short-handed, the different watches are saddled with more than their ordinary work.

After leaving Auckland, we passed the Great Barrier Reef, where the *Wairarapa* was wrecked, with great loss of life, in October, 1894.

Despite frequent agitations on the subject, the New Zealand Government has failed to place a light or bell-buoy at the Islands of Three Kings, and it is claimed by navigators that the coast of New Zealand is one of the worst lighted in the world.

We arrived at Suva, Fiji, in the afternoon of July 14th. Elsewhere I will devote much space to the Fiji Islands and will not expatiate here on them, only to say that I learned at this time from residents who joined the ship that qualifications for local club membership are much more tightly drawn on this little island in the Pacific than anywhere else on earth!

Leaving Suva on Friday, we crossed the 180th meridian of longitude, so that the next day was Friday also.

White traders and retired merchants operating on the Pacific have a club at Tavinuna, built across the 180th meridian. If they are playing poker late on a Saturday night in a room situated in eastern longitude, they can move at midnight into a room in western longitude and continue their game until another twenty-four hours elapse. Sunday laws do not bother them.

Our voyage to Honolulu was delightful. We stayed the greater part of a day there and the weather was of Oahu's best.

The voyage from Honolulu to Vancouver was uneventful. On the 25th we passed an American man-of-war, the *St. Louis*, about two miles distant, and at the same time saw a couple of whales and several schools of porpoises. At ten o'clock in



SMUGGLED WHISKEY - FOUND BY PROVINCIAL
POLICE, TETE JAUNE, B. C.



PRINCE RUPERT, TERMINUS GRAND TRUNK
PACIFIC RAILWAY BRITISH COLUMBIA



GROUP OF SIWASH INDIANS, ALERT INLET, B. C.



ALPINE CLIMBING AT
LAKE LOUISE, B. C.

the evening of July 28th we arrived at Vancouver, one day late, owing to bad coal.

When we passed the *St. Louis*, a Semitic passenger from New Zealand, rushed to his stateroom and reappeared with a horse-pistol that had seen service in the Maori War. He swore he would defend the ship. Mr. Ritchie, one of the directors of the Union Steamship Company, was on deck at the time and suggested to the excited Hebrew that he throw the weapon overboard as the best possible method of defence.

In traveling over this course, near New Zealand, on the *Niagara*, in 1917, little did we dream that the German raider, *Wolf*, was hovering by, lying in wait for us, and was only deferred from attacking us because some Japanese cruisers were in the neighborhood. The *Wolf* had sighted them by hydroplane. At the time I remember we thought it a great hardship because we were unable to send wireless messages from the ship, but on this occasion the rule was surely a fortunate one, as it would have given the *Wolf* knowledge of our position and she might have trailed us to disaster.

THE PACIFIC COAST OF THE NORTHWEST

Approaching the North American coast from Australia and the Orient we pass through the Straits of Juan de Fuca, twelve miles wide, which separate Vancouver Island from Cape Flattery of the State of Washington. At this point the tide rises some thirteen feet. We land at Victoria, the capital, a city with a population of 40,000, situated at the southern end of the island of Vancouver, which has an area of 16,400 square miles.

Up to 1913, the *Niagara* was under the command of the genial old Scotch skipper, Captain John Gibbs, Commodore of the Union Steamship Company's fleet.

He died in Sydney on August 15, 1918. Upon Captain Gibbs's retirement, Captain Moresby took command of the *Niagara* until July, 1914, when he retired to fill a responsible shore position with the Company in Sydney.

To the visitor it seems singular to find the capital of British Columbia located here. Not that it does not meet requirements. The climate of Victoria is indeed the most delightful in Canada, and as witness to this fact many English families have crossed the sea to make the city their home. Thermometer readings are generally a bore, so to offer the reader a plain unbiased opinion, I might mention that while dining at the Alpine Club at Banff, in the Rocky Mountains, I asked a much-traveled Boston lady what she thought of Victoria's climate. Enthused, she replied it was glorious, and if only the Stars and Stripes floated over it she would be content to live there forever.

After making a short stay we proceeded to Vancouver, a distance of about eighty miles, having the choice of two channels to go by, one of them taking us through a most beautiful group of islands.

If the passenger desires to spend some time in Victoria and on Vancouver Island in fishing, permission is readily given him by the steamship companies. Fish abound in the numerous lakes and rivers, and the scenery is unsurpassed. If the tourist should arrive in the shooting season, he would find good sport in bagging pheasants, pigeons and various other birds.

Arriving at Vancouver, we discover one of the prettiest marine cities in the world, and the Pacific terminus of the Canadian Pacific Railway. This province of Canada possesses more natural water-power, valuable timber, minerals, coastal, lake and river fishing grounds, and scenic beauty than any commonwealth in the world. Such a claim would seem a risky declaration, but there are many to swear by it. A couple of weeks can be spent here to advantage, and at the end of that time one will be subject to its thrall. The drives are especially delightful.

Vancouver itself is so surrounded by ocean inlet and by waters generally that it forms a peninsula. The Canadian Pacific Railway for five hundred miles east, as far as Banff,



MT. RAINIER, FROM LAKE WASHINGTON, SEATTLE



SEATTLE'S LAKE WASHINGTON BOULEVARD



GATEWAY TO TACOMA, WASHINGTON



ROSE-BORDERED STREET, PORTLAND OREGON

carries one through the Cascade Range, Gold Range, Selkirk Range, and Rocky Mountain scenery of unrivaled grandeur, reaching in places an altitude of five thousand feet. In recent years tunnels have been driven—one of them five miles long—to avoid the steeper ascents. The railway furnishes every equipment of modern travel, and makes it as comfortable as possible for the traveler. I must add that this trip affords magnificent views of parks, lakes and rocky amphitheaters.

But the passenger leaving the boat may not choose to take this wonderful journey. He or she has the option of leaving the boat at Victoria and taking the Canadian Pacific Railway's steamer for Seattle or Tacoma, and then entrain to Portland and San Francisco, from which points choice may be made of a rail route across the United States.

Suppose we take a look at Seattle? This city is built on high hills which, in many places, have been cut down several hundred feet by hydraulic sluicing, the water being forced out of a hose at terrific pressure. Lakes Washington and Union, at the back of Seattle, so to speak, are beautiful bodies of water; and a drive on a fine day along the tree-shaded boulevard skirting Lake Washington is a treat. Recently, a canal eight miles long, connecting Lake Union and Lake Washington with Puget Sound, has been completed by the American Government. Great advantages are derived from this by mercantile shipowners and by the navy.

It is well known that ships in salt water soon become covered with barnacles—at least the ships' bottoms do. These barnacles increasing to tons in weight impede the speed of the vessels. They are crustacea of marine growth, and when very young are free-swimming, until they fasten themselves to their permanent homes. So, instead of having to incur the expense of putting ships into dry-dock for scraping, the owners can take them through the canal into Lake Washington where the barnacles are killed by the fresh water, and thus easily removed. Fresh water is fatal to all marine growth.

However, the barnacles do not drop off on entering fresh water, though this impression is prevalent.

Among the marine animals in these salt waters are the *Teredo* and the *Limmoria*, which cause serious damage to the soft wooden piles sustaining the piers. Of late years it has been found advantageous to import turpentine and iron-bark piles from Australia, because they have been found to resist the ravages of the destructive *Teredo*. This creature, by the way, is a mollusc, and attacks the inside of the pile, while the *Limmoria* is a crustacean, and attacks the outside. They cannot live in fresh water.

My thoughts leap to another fact with the lightning-like character that often marks the globe-trotter. It is not so many years ago since the dividing line between British and American territory was decided upon; and only for the stubbornness of an old English surveyor British Columbia might have embraced within her borders the whole State of Washington. Some time in the middle of the nineteenth century, disputes arose as to the proper boundary line between the United States and British Columbia. Thereupon, the British Government sent representatives to the Pacific coast to investigate the contention, learn the literal lay of the land, its resources, and all the rest of it.

The whole country was a wilderness in those days. Now, the old English surveyor aforesaid was very fond of fishing, and to this pastime he devoted most of his attention rather than to investigating the resources of the country under dispute. He fished in any number of streams and finally got as far south as the Columbia River in Oregon, which, like the Fraser River in British Columbia, contains vast silver hordes of salmon. Our devotee of the rod tried his luck here, naturally, but the salmon would not rise to the fly. Such lack of sense and gameness disgusted the surveyor-fisherman, and the story goes that he returned to New Westminster, on the Fraser River, an old settlement, having formed the opinion that any country where fish would not rise to a fly was no



WATERFRONT, VANCOUVER, BRITISH COLUMBIA



OKANAGAN LAKE, NEAR PENTICTON, B. C.



VICTORIA, B. C.

d—— good, anyhow, so he would let the Yanks have it. Whatever determined it, the American claims were appeased by locating the boundary at the forty-ninth parallel, in 1846.

Truly, in this part of the earth the soil is of the richest and best. And independent of that heritage, the streams, as we have already observed, are teeming with life, the salmon alone being a most bountiful gift from the gods. The forests abound with a variety of valuable and serviceable timber. The coastal waters are a constant source of delicious sea food such as the halibut, cod, whiting and sole.

Close to the coast runs the Coast Mountain Range, and in that section of the country dairy-farming gives excellent results. On the east of the mountain range the region is noted for its fruit, the Yakima and Winatchie apples, of the State of Washington, having achieved a world-wide reputation.

There is an abundance of rainfall on the west of the Cascade Range, but on the east irrigation is necessary and has been employed with the best of results.

SYDNEY TO CANTON

*(A Voyage to the Philippines, China and Japan in
May to June, 1913.)*

On the day I was to sail from Sydney on the *Yawata Maru* for the Philippines, China and Japan, the morning papers described a storm raging at sea, stating that weather stations along the coast had their signals hoisted warning ships to stand off the land; so I decided to put my baggage on board the steamer and go overland to Brisbane by train. After a stay of twenty-four hours in Brisbane I joined the steamer bound north. It was a fortunate move on my part, for the captain told me that he had left Sydney at noon on Wednesday and had been compelled to stay out buffeting the waves until four o'clock the same afternoon. Then, owing to the rapidly falling barometer, he had decided to return to port and lie

inside Watson's Bay until the tempest abated. He was not afraid of shipwreck, but he thought he would save his owners some expense for repairs if he waited for the subsiding of the hurricane.

We arrived at Thursday Island, nearly two thousand miles north of Sydney, on May 22d. The islanders, who are a mixture of negro races, dive for pearl shell and fish for *beche-de-mer*, which is also called trepang and water-cucumber. It is a sea slug about eighteen inches long. In preparing it for consumption the slug is first boiled, then dried and smoked. When ready for use it looks like burnt leather. It must be kept dry to remain fit for food. Among the Chinese and Japanese it is a very popular article of diet, particularly for stews and soups.

At Thursday Island Captain Dabelle, our pilot, left us. I may remark that all ships must take pilots inside the Barrier Reef along the Australian coast.

The negro races being migratory, I cannot say what number of the species remain here. But eight hundred Japanese pearl-divers find employment in these waters. Usually, the pearl boats are manned by mixed Malays and New Guinea boys. Fights are frequent.

Remuneration for divers is stipulated at a monthly wage for getting the pearl-shell, and it is understood that they can claim possession of all pearls found inside the shell. In 1917 a spirit of discontent spread among the pearlers. Fourteen Australian aboriginals cleared out in dinghies (small boats), one of which upset with the result that four of the fleeing rebels were drowned and eaten by alligators.

Considerable discussion has arisen regarding the difference between alligators and crocodiles. What in Florida, for instance, is called an alligator may be known as a crocodile in the Torres Straits. Even authorities on the subject disagree. Perusal of faunal writers shows that there is diversity of opinion in regard to the proper classification of these reptiles. The crocodiles indigenous to the northwest coast of Australia

consist of two or three species. They differ from the alligator found in Florida, chiefly in the shape of the head—which is longer—and in the structure of the teeth; also, the feet are more webbed.*

The tide at Thursday Island rises seven to nine feet, and moves at the rate of seven miles an hour. The anchorage is bad. Along the coast are rich deposits of sponges that bid fair to rival the far-famed beds of the Mediterranean. Thursday Island sponges are shaped like a clown's cap and are of endless variety. For many years the pearl divers had seen them, but had paid no attention to them, thinking they were merely a mushroom growth of no value. An American claims to have obtained a concession to exploit these promising fields.

Sponges vary in value from eight cents to six dollars and a half per pound. Australia alone uses \$60,000 worth of sponges a year, and most of them are imported.

Pearl Shelling.—To the northwest of Thursday Island are situated the Aru Islands of the Dutch East Indies, the greatest pearl-shelling grounds in the world. In 1914, the largest pearl ever found, weighing one hundred and twenty grams, came to light there, and was exported to London, where it commanded the large sum of twenty-five thousand dollars.

Employed as divers for the shell are Japanese, Javanese, Chinese and Filipinos, as well as natives from the Dutch East Indies, including Banda, Ambon, Macassar, Kei, Timor; and even Singapore natives are to be seen among the diving crews. They make quite an assortment of humans. Here, as elsewhere, the Japanese are the most reliable divers, just as the Filipinos are characteristically stubborn and require stern

* The Sydney *Bulletin* describes a unique method of trapping crocodiles in the North:

"Traps are erected and placed at a considerable distance from the water. When the trappers first adopted their unique profession, they built a brush fence with a circular opening in the center, over which was placed a strong noose. Within was tied a dog, and when the bait began to bark, the lizards lost no time in leaving the water and trekking toward the trap, where they were finally secured."

management. Fights, of course, are common among the various divers, who have many racial distinctions and jealousies.

An industry, chiefly controlled by Levantine Greeks, is conducted about one hundred miles northeast of Thursday Island in waters about the Trobriand Islands. Here are being found beautiful and rare gems of pink, black and cream color.

White men, according to the terms of the lease, have a restriction placed upon them with regard to diving, for as they wear diving suits, it is compulsory for them to work below five fathoms; the water at a lesser depth than this is reserved for the Aru Island Binghis (native divers), in the Dutch East Indies, inasmuch as they work naked, and are not required to dive deeper unless they want to.

The pearl shelling fleet, in 1914, was made up of one hundred luggers and five schooners. Among the latter it is worthy of mention that the most renowned "black-birder" in the Pacific, the *Sydney Bell*, still carries supplies for her fleet of pearl luggers. As you probably know, "black-birding" is a term used for recruiting and kidnapping South Sea Island natives from their island homes, taking them far away and indenturing them for a term of years to planters who must have labor. These planters themselves have broad acres on many of the islands of the South Seas.

The mode of diving in the waters about Trobriand is remarkable. Instead of the divers walking along the bottom, as is the custom around Thursday Island and in Western Australia, the luggers are always under sail and slowly tow the divers in their wake. In this manner they are enabled to cover a much larger area than in the old-fashioned way. When the pearl shell is brought aboard the luggers, launches are set in motion collecting and transferring it to the schooner, where the white overseers open it and search for pearls, which adhere to the sides of the shell, or are embodied in the body of the oyster itself. Finishing their particular job, the overseers pass the shell to the natives, who scrape and wash it and afterward place it in the sun to dry. The white overseers

sort the shell into six different grades, when it is packed by the natives for shipment. Pearls found in these grounds are not the property of the divers as they are among the Thursday Island workers.*

The greatest menace experienced by the Binghi, or native boy, is the alligator, which is always on the alert for its dusky and defenseless victims, who, diving *au naturel*, fall easy prey to the watchful reptile.

Prior to 1914, pearl shell realized one thousand dollars a ton. It is used for the manufacture of buttons, cutlery handles, and various articles of ornament. Pay of the divers is surprisingly little when you take into consideration their daily risk. They receive only five hundred dollars a year. Native divers receive even less, their pay being about two dollars a month. The average "take" of a diver is from fifty to one hundred shells a fortnight, each shell in weight averaging about four pounds.

When the Great War began the exportation of mother-of-pearl ceased to Austria, the place of its principal manufacture into buttons, so prices fell. But the divers still kept busy to some extent by going after the Trochus shell—this is a spiral, cone-shaped shell of a very brittle character and not so valuable, being gathered in shallower water. If a large enough Trochus cone is discovered, out of which a bracelet can possibly be carved, it is presented to a chief, who prizes it highly.

Owing to the movement of strong tides running, and the southeast Trade Winds or Monsoons, which stir up and discolor the water, divers can work only six days a fortnight, the rest of the time being devoted to the repairment of the fleet. At the most, they can work only eight months in the year, the Monsoons being much more prevalent and contentious from June to September.

Apart from the pearl-shell industry, a big trade is carried

* If I may make a suggestion to the possessor of pearls, I would advise him or her to never carry them where they come in contact with the body—the heat of the skin causing them to lose their lustre.

on in shark fins at Thursday Island, whence they are sent to Japan and China.

Let us jump for a moment to another quarter of the globe. The Arabs when diving for pearl shells in the Persian Gulf have a heavy stone attached to a rope which helps them to reach the sea floor. Work here is most profitable, and the Parsees and Armenians are the bosses.

One of the most interesting industries in the world is located on the Island of Tatokujima, in the Bay of Ago, Japan. Here are strange farm lands indeed, whose crops are lustrous pearl. Oyster shells have a smooth coating inside called mother-of-pearl or nacre, which the bivalve builds slowly layer on layer. Now the smallest foreign substance entering the shell of an oyster causes it an intolerable irritation, which the oyster endeavors to allay by coating it with this mother-of-pearl. The process may go on year after year, and any mollusc may form pearls in this way, but those produced by common oysters and clams have little or no value.

On the "pearl farms," about July and August of each year, small pieces of rock and stone are placed where the larvæ is most plentiful in the oyster beds. This is the period when the greatest amount of stone "planting" is done. Soon after this act oyster-spats become attached to the rocks which are then removed to prepared beds in deep water. Here they are left for three years, then into each oyster is introduced a small seed-pearl to serve as the nucleus for a future pearl of size. After being left in the sea for four years more, the treated oysters are taken out and the pearls gathered in a glistening harvest.

The work is done by Japanese women, principally, who prove more efficient than men at it, and are able to remain under water at the task for as long as two and a half minutes.

Most of the shops on Thursday Island sell pearls and curios, and the prices vary amazingly. I bought eight pearls weighing fifteen carats for thirty dollars. Consulting a rival dealer, I found that he valued them at seventy-five dollars.

When I showed them to the captain of the ship, he estimated their value at one hundred and twenty-five dollars. This was another instance of an old observation of mine, that not one man in a thousand knows the worth of a pearl, or, for that matter, of other gems.

A local pressman told me that when residents of Thursday Island go south to Sydney or Melbourne, in winter, they suffer so intensely from the cold that it takes them weeks to get back to their normal condition after they return home.

We took on board quite a number of Japanese pearl divers and Chinese, who were going back home.

We skirted New Guinea on May 23rd, 1918. Last night the Chinese celebrated their departure for home by setting off long ropes of fire-crackers. They made them into wreaths about ten feet long and a foot thick. What a row they made! The ropes or wreaths were attached to a pole and held out over the starboard bow. One rope of the fire-crackers, ignited, dropped inside the bulwarks. Seeking safety from the explosions, a wild scramble by the passengers in the well-deck resulted.

At this point occurred an incident which indicates the independence of the Japanese. A timid American couple rushed to the captain and protested against the fireworks exhibition. Cuttingly, the captain resented their complaint. He told them that he considered their interference an insult, as it cast doubt on his ability to handle the ship and protect the passengers. Captain Sukine was a very capable officer, and knew his business. It appeared that the Japanese Steamship Company paid for this fire-cracker display so as to please Chinese passengers and cultivate Chinese business. I must point out that Japanese steamships have suffered from Chinese boycott, and now they take extra pains to win over their Celestial brethren.

It was in these waters that the German raider, *Wolf*, sank the *Matunga* on August 6th, 1917. Alas, that was a far different explosion from the Chinese fire-cracker exhibition which so annoyed our American couple.

In traveling about the world I have often wondered which aboriginal tribe was the ugliest, and finally came to the conclusion that the natives of the islands in the Torres Straits took the palm. To see a yelling horde of *beche-de-mer* fishermen on a boat, one might easily imagine that the inmates of Hades were out for a picnic. However, a pearling overseer tells me that the Torres Straits natives are handsome in comparison with some West Coast New Guinea (Papua) boys. Here is a picture of them: They are heavy jawed, and when engaged in the gentle art of eating move their ears in harmony with jaws and teeth. They subsist mostly on fish, but if given a meal of rice it is as good as a Christmas feast to them, and they shovel it in with both hands, fearless of indigestion. They are fond of chewing betel nuts and expectorating red juice. Their style of dress—if it can be called dress—is grotesque: They wind their arms with twine and smear their bodies with coconut oil, and their headgear consists of feathers of birds of paradise, which are plentiful on the west coast of New Guinea. This bird, it will be remembered, is prohibited by law from importation in most countries of the civilized world.

The *Yawata Maru* missed a typhoon by a short time. A sister ship, the *Inaba Maru*, had just come through one to the north of us. Our Japanese doctor received a letter on Thursday Island from a friend who described the effects of the typhoon. It tossed the *Inaba Maru* about a great deal, tore out the brass port-hole fittings, smashed glassware, chinaware and many movable articles. The damage was \$75,000.

A typhoon was described to me as a mighty wind of extreme velocity, covering a vast area, and resembling a blizzard; but it has no fixed direction and moves over land or sea with the same ease and force. In a cyclone, of which the center is a vacuum, the suction is so powerful that it draws in birds, which have been known to drop down helpless on the decks of ships. A cyclone usually travels in one direction and its path is generally less than a half mile wide. A typhoon is not necessarily a sea phenomenon, and on land one of them

is terrible in its destructiveness—after one hits a town the spot looks as if it has been bombarded by 18-inch guns. In 1906 a typhoon in Hong Kong killed six hundred people. Great surprise was expressed in Shanghai at a shower of rice a few years ago. It was later ascertained to have been carried by a typhoon from rice fields twenty-five miles away.

THE PHILIPPINES

Continuing our voyage on the *Yawata Maru*, we arrived at Manila, in the Philippine Islands, about daylight. The weather was perfect.

This group of islands was discovered by Magellan in 1521. The Spaniards took possession of them in 1565. They were ceded by Spain to the United States in 1898, or, rather, partly ceded, and finally given over on November 7, 1900, in consideration of \$20,000,000. The group comprises 3,140 islands. The population was estimated in 1915 at 8,937,000, of whom 20,000 were Europeans and Americans, and 50,000 Chinamen.

After drifting around the city I landed at the Manila Hotel, a modern hostelry, for the construction of which it is stated the United States Government furnished half the capital. It is finely situated and has beautiful park grounds, where, every evening, a band of one hundred Filipino musicians play an excellent program. The leader of the band is a negro captain of the United States Army.

While in Manila I met Mr. and Mrs. Wade Knight. They had spent some time in Australia, and so we had common interests. Mr. Knight was a well-known Texas oil man and sought to woo the patronage of the Antipodean and Oriental markets. Originally, he was a New Yorker, and like a few others of that clan, could not see anything to compare with "good old Manhattan," and declared that he would rather be a lamp-post on Broadway than the Emperor of Japan. Mr. Knight has since died in America and sleeps beneath the Northern Constellation he loved so well.

There are some pretty drives around Manila, and the

parks are attractive, with plenty of shade. A number of old fortresses are in evidence, and they give a historic touch to the scene. Many ancient churches, built in the days of Spanish occupation, meet the eye. I visited the Jesuit Church and was shown a very interesting library, museum and laboratory.

As it happened, we arrived on a national holiday, the occasion being the decoration of the American soldiers' graves.

English capital appears to be invested in most of the business concerns—cigar factories, tramways, electric light and gas companies, etc. At first, the Filipino is quick to learn mechanism, but he becomes careless at about the age of thirty. In fact, I was told that the humid climate has a very trying effect on the memory of those of all nationalities residing in the Philippines

When the United States sent a number of school teachers to the Philippines, it was noticed that the native boys began to have "swelled heads" from the learning that they received; so the school authorities changed their tactics and taught trades to the young arrogant intellectuals. Among the Filipinos the ambition to be employed by the civil service is widespread.

At one time rice was extensively grown in these islands, but in 1912 the American Government had to import ten million dollars' worth of rice to feed the inhabitants; indeed, about 1910 the American Government sent steamers loaded with rice along the coast for the natives, whose crops had either failed or were insufficient to meet their needs. Gratitude, we know, is rare in humans; therefore many of the natives would not take the trouble to go down to the shore for their rice supply, but insisted that it be carried to their huts up among the hills.

Early in 1913 there was a war scare, and the American authorities removed \$35,000,000 worth of gold from the treasury vaults in Manila to the fortress of Corregidor, situated about twenty-eight miles down the bay. It is claimed that in this fortress a four years' supply of food and ammunition can be stored

Our Japanese captain smilingly remarked one morning

that his country could march her troops overland and capture Manila before breakfast, but the difficulty would be to hold it after they got it.

The American Naval Station was at one time at Cavité, but has now been removed to Olongapo, which is about sixty miles from Manila.

At the outbreak of the Spanish-American War the Germans were maneuvering in Manila Bay, May 1, 1898, in a manner that embarrassed Admiral Dewey, the commander of the American fleet. Sir Edward Chichester, the British admiral, thereupon signaled to Dewey: "Blood is thicker than water,"—a message that was most heartening.

Admiral von Deidrich commanded five German ships, one of which, the *Princess Irene*—before the declaration of war—had sided with the Spanish troops against the Filipino insurgents. The German admiral was warned by Dewey to withdraw. From Admiral Dewey's book I learn that Deidrich was reluctant to retire, and the American naval hero was compelled to send Flag-Lieutenant Bromley to remonstrate with the German Admiral. Von Deidrich paid no attention to the first signal, so Bromley promptly fired a shot across the *Cormorant's* bow, which had the desired effect.

While in these waters Admiral Dewey was piloted by an Australian, Arthur Whitford, of Geelong, Victoria, who later entered the service of the United States.

"Blood is thicker than water" is an old saying, concerning the origin of which wrong impression exists. The credit for originating the adage belongs to Commodore Tattnall of the United States Navy, who used it on June 25, 1859, when the French and English were having their troubles with China. The British Admiral Hope was at the mouth of the Peiho River, and two of his gunboats grounded, falling into the hands of the Chinese. Commodore Tattnall thereupon signaled: "Blood is thicker than water," and rendered assistance to the British fleet. Afterward, in 1861, when the rupture took place between the Northern and Southern States, Com-

modore Tattnall became a Confederate commander and distinguished himself.

That little glimpse of past history ought to stimulate the pride of Americans, perhaps to the point of visiting the locality. In such case, I can call attention to a popular line of steamers run by the Royal Spanish Mail, between Manila and Barcelona, Spain. On these boats passengers are treated right royally, champagne being supplied to them on Mondays and Thursdays.

HONG KONG AND CANTON

Leaving Manila behind, we headed for Hong Kong. The harbor of that Chinese port we discovered to be six miles long, and it was splendidly protected by mines and by masked batteries on the hills which rose on either side. Our captain informed us that on some days in Hong Kong harbor there is a preponderance of Japanese shipping, sometimes more of it than that of any other nation, although Hong Kong is the terminus of all big steamship lines of the world's trading in these seas.

On arriving I went to the Hong Kong Hotel, where the rates were from three dollars a day up, including meals. Settled temporarily, I made a trip to the office of the Pacific Mail Steamship Company to change my ticket. Very much to my surprise and pleasure, I met Mr. J. Shepard, a former member of our Sydney office staff, who had married a Sydney lady, and gone to Hong Kong to enjoy domestic life. They were kindness itself during my stay in the region. Like many others, they boarded and furnished their own rooms. It cost them five pounds gold weekly. House rent is high in Hong Kong, for thirteen per cent. on the actual rental paid is levied for general taxes. Hong Kong is a free port except for a duty on spirits. Even tobacco is allowed free of duty. Rickshaws, one of the characteristic institutions of China, are subject to a wheel tax of seven dollars annually.

Hong Kong is not a city, as many suppose, but an island,



Native Bazaars, Nankin Road, Shanghai,
China



Looking North Along East Tartar City Wall

SCENES IN CHINA

thirty miles in circumference. Victoria is the city proper. It is the headquarters for the British military garrison in the Far East, and a governor is sent on from England, with quite an entourage. The city of Victoria is built on hills, the highest point being 1800 feet, and reached by cable-tram. The humidity is often disagreeably intense, and the heat varies from 90 degrees to 100 degrees in July and August. At certain times a fog spreads over the city above the 1400-foot level, and shuts out the view of the harbor and city from those wishing to see it from highest places.

I forgot to mention that on the ship there were English army officers and a British doctor who practiced in Hong Kong. By some of the residents of the place, Hong Kong is described as a rendezvous of snobs. For example, "solid" business men were not eligible for membership in some of the local clubs because they are "in trade," while, on the other hand, a clerk in a bank or insurance office is admitted.

Among my purchases I bought three short white duck coats for a dollar and a half each and an Eton jacket for a dollar-seventy-five. The white Eton, or mess jacket, is worn by nearly every man at dinner. I had also a light tweed suit made to order in two days for eighteen dollars, and it was as excellent a fit as I ever had.

Female slavery still exists in China, deny it who may. A physician assured me that men in Canton and Hong Kong can obtain possession of children at various ages and adopt them, which simply means that they have bought them from their parents. And if the children try to run away from their masters, the police will render every assistance in tracing and returning the fugitives.

Chinese conditions and customs permit widest latitude in religion, which naturally includes the same "liberality" in morals. In Governor Blakis's time a man came to a public reception at Government House and brought three wives with him, much to the chagrin of many Chinese ladies. He posed as a Confucian.

I found that Eurasians, which are the offspring of a white and an Asiatic couple, occupy good positions in Hong Kong offices, and they are experts at invoices in all languages. Like the Eurasian, the mestiza is not understood in his blood-mixture by the average man. Now, the mestiza of the Philippines is the child of a Filipino mother and a Spanish, Chinese or Malay father.

At night, by boat, I journeyed to Canton, and arrived there at daylight. I went to the Victoria Hotel, in the foreign possession, for my breakfast. It is the only English hotel in Canton. Before I left Hong Kong Mr. Shepard had warned me to soak myself in disinfectant, as the Cantonese odors were intolerable to the visitor. Shepard told me only half the truth. I nearly collapsed several times from the stench that arose on all sides as I went through the city.

There appears to be no certainty about the number of the population of Canton. It has been estimated all the way from three to seven millions. But there must be nearly half a million families living on boats—a real floating population. These boats are propelled by women, many of whom have babies strapped across their shoulders as they labor. Flocks of chickens are hatched aboard these houseboats, and when the tide is out a plank is laid from the boat to the shore so as to give the chicks a chance to run and feed among the stones.

Shortly after my arrival I got hold of a guide who hired two chairs for himself and me, and we had two coolies to carry each of us. Hour after hour these coolies trot along, perspiration pouring off them, but never a word of complaint.

It would take the pen of a Loti to describe Canton. I can offer only a glimpse. The thing that strikes the stranger first is the utterly pitiful existence led by the Cantonese in general. What would be considered alleys in any other part of the world are called "streets" there. In width they are from six to twelve feet, and crooked. The rays of the sun never penetrate to any extent between the walls of houses either side of the thoroughfares. There is little or no sewerage.

Various foreign countries have each a section allotted to them on the Shameen, which is the home of the different consuls, together with some soldiers, whose governments have erected splendid buildings.

The date of my visit to Canton proved to be the king's birthday, which was being celebrated as a holiday. An Indian band came all the way from Hong Kong to supply music for the festivities. Our coolies, under the direction of the guide, carried us about the narrow streets which in places reminded me of the dungeons under the Bridge of Sighs in Venice.

While sight-seeing I saw one method of keeping time which was used two thousand years before Christ, long prior to our clocks with their hands and pendulums. It was in the form of a water tower, and a regular drip of water caused a measure to rise and record the passing hours. Even as I was examining this curious and ancient contrivance the bells of the French Cathedral near by chimed the Angelus. This was a dramatic contrast between old and new inventions for keeping time.

On leaving this quarter of the city, we visited the temple of five hundred genii, or Chinese gods, which are represented by that number of brass images, all of them close to life size. A Chinaman may select any of these gods as a sort of patron saint, but if the one chosen does not use his influence to bring a male heir to the devotee, he can discard him, divorce his wife, and pick another wife and god, and continue this interesting experiment through the whole line of genii until the faithful seeker is the father of a boy! The same latitude is allowed throughout China in matrimonial affairs.

Oddly enough, a brass statue of Marco Polo is honored with a place among the gods. In the thirteenth century this Italian traveled over much of China, and his memory is revered to this day by the Chinese. Now, I had a hazy recollection of reading about Marco Polo in my school days, and being uncertain as to when he lived, I turned to my guide for enlightenment. He informed me that the illustrious explorer lived

about forty years ago. I mention this incident to show what dependence may be placed on data furnished by guides.

I had the luck to meet a funeral. The hearse was a sort of long frame, or box, trimmed with streamers of vari-colored papers. Following the procession were two coolies who supported a frame which held a pair of roasted pigs used as an offering. Time was when the relatives of the deceased left these pigs at the grave, but my guide explained that now the mourners did not bury the porkers with the dead. They ate them instead, for it had become a common practice for others to do so if the roasted dainties were left in the cemetery. We hear of China awakening, and this has evidently been one of the eye-openers.

Later, we visited sections of the city which were given over to furniture-work, carving, hats, paper, linen and gold-braid curtains. Leaving there, we passed some butcher shops and restaurants, and I must confess that the stench was unbearable. Though on the lookout, I did not observe any water-taps on my little circuit, but once I did see a boy draw water from a well in the heart of the city.

Scarcely any women were in the streets, I noticed, and apparently they are kept inside most of the time. Under the conditions existing there I cannot understand how they manage to live.

No death, marriage or birth records are kept in China, so it is impossible to get any statistics on the death-rate. But Canton and Hong Kong are visited by every known disease, and it is no exaggeration to say that there are from twenty to thirty cases of plague daily. Smallpox is always prevalent, but in Canton the form of it is not so malignant as is found elsewhere in the kingdom. The Chinese have a very peculiar method of vaccination, which was probably practiced ages before Jenner introduced his. They obtain the pustules from a smallpox patient, dry them and grind them into a powder, which they inhale through the nose. The result of this treat-

ment is that when they get an attack of the disease it is in a mild form.

I have this information from an English doctor, resident in Hong Kong, who was a fellow passenger on the ship; and he also stated that there are often two or three cases of bubonic plague at Hong Kong Hospital.

Never in my experience have I seen a ship pass through quarantine inspection in any port with as little examination as that given at Hong Kong. Battalions of Hong Kong microbes are always prepared, I have no doubt, for any new foe that may dare to enter their province on an incoming boat. One can fancy them defiantly exclaiming: "Come along, trot out your worst forces! We have beaten all previous invaders, and are ready for you!"

Being anxious to leave Canton early in the evening, I returned by train to Hong Kong. On the journey back I got acquainted with two English engineers and two Christian Brothers. In course of conversation their description of the beheading of criminals and the corruption of judges was enough to make one's hair stand on end. I cannot detail it all here, for it is too repulsive, but I may go so far as to say that the emissaries of the executioner visit the relatives of the condemned man the night before his execution and request a bribe or contribution on condition that they refrain from chopping up the body of the victim into small pieces. Also, a prisoner condemned to death may be visited in his cell the night preceding the day fixed for his execution by an emissary of the authorities, to see how much money he might be able to raise through his friends, with a view to getting him off with a light sentence—if the prospective sum be sufficient.

When there is no chance of obtaining a reprieve, the relatives bribe the jail officials to drug the condemned man, so that he will be as near insensible as possible while undergoing the butchery.

Among other objects I bought in Canton were three small tables, upon which they charged me five per cent. export duty.

I was informed that if I had stopped off at every station on the railroad between Canton and Hong Kong, I would have been charged an export duty at each point.

This specific duty was put into effect by what is known as the Nankin Treaty, an instrument difficult for us to understand because values are fixed thus: If a chair, for instance, is valued at a dollar, the duty on that chair is five per cent. of this amount; but if in the course of time the cost of the chair should be doubled, the duty in the aggregate would amount to no more than on its original valuation. Such a system of taxation applies to the exports and imports of China, except on the island of Hong Kong, which is owned by the British.

The Cantonese will often ask a price in excess of what they will accept for an article. For example: A Seattle lady admired a brass vase and was bargaining for it through her interpreter with the merchant, who wanted seventy-five dollars gold; a Honolulu gentleman, Mr. Vida, who lives in Shanghai, was present, and dissuaded the lady from closing the deal; and later on he got it for her at thirty dollars; her guide-interpreter had been conspiring with the shopkeeper to rob the unsuspecting tourist.

Between Canton and Hong Kong the country is largely given over to rice-growing. The fruit I saw for sale consisted of pears, plums and peaches, all of them small and withered, not the size of an egg. Being the middle of June, possibly the better fruits were not yet ripe. As for the vegetables in Canton, nothing would induce me to eat them unless they were thoroughly boiled.

I have had considerable experience in the changing of money in different parts of the world, but the various values placed on currency in China puzzled me and every other traveler I met. The Chinese are clever mathematicians, and for "ways that are dark" the Chinaman at home is fully equal to the reputation given him by Bret Harte in California. The Chinese excel in banking and finance.

About ten years ago a Chinese manager of certain depart-

ments in the Hong Kong and Shanghai Bank embezzled funds. He was arrested, but instead of prosecuting him the directors were compelled to release him, and this in spite of the fact that the amount of his default was four hundred and fifty thousand dollars. Why? Because he knew so much of the bank's affairs in the Far East, and had such a wide and valuable experience, that the officials were unable to conduct their business without him!

China is full of wise old saws. The Chinese Buddhist has a saying that struck me forcibly: "Every man you meet should be your teacher." Another one is good: "The king and the beggar know more than the king."

FOREIGN RESIDENTS IN CHINA

In connection with the recent local census, says the *China Critic*, of Tientsin, it may be interesting to note that recent statistics collected by the Chinese Government showed that the total number of foreign firms in the whole of China in 1913, not including Hong Kong, was 2,862. The foreign population is given as 153,522 men, women and children, divided as to nationality as follows:

	<i>Firms</i>	<i>People</i>
Americans	1,111	3,470
Austrians	26	385
Belgians	17	294
Brazilians	2	22
British (including West and East Indians)	606	10,256
Danes	9	295
Dutch	11	192
French	112	1,925
Germans	158	2,758
Greeks and Turks	4	93
Hungarians	3	26
Italians	12	424
Japanese	1,283	78,306
Koreans	46	2,256
Norwegians	8	246
Portuguese	57	3,224
Russians	313	51,221
Spaniards	6	258
Swedes	1	150
	<hr/> 2,863	<hr/> 153,522

These figures do not include foreign or military forces serving in any port of China.

INDEMNITIES

So many conflicting statements have been made concerning the amounts paid by China to foreign nations for claims arising out of the Boxer Rebellion of 1900 that I applied to Mr. George E. Anderson, American consul-general at Hong Kong (whom I had met in Australia), for authentic data on the subject. Mr. Anderson kindly complied with my request and wrote me as follows:

DEAR MR. COFFEE:

Re the question of the Boxer indemnity paid by China. After the Boxer troubles in 1900 the various nations required of China an agreement to pay an indemnity to cover the amount of the nationals which had been destroyed through the trouble and the expenses of their military and other expeditions to protect such nationals, including the legations at Peking.

The indemnity allotted to each Power was as follows:

Russia	£19,575,000
Germany	13,500,000
France	10,600,000
Great Britain	7,425,000
Japan	5,400,000
America	4,725,000
Italy	4,050,000
Belgium	1,350,000
Austria-Hungary	605,000
Holland and Spain	200,000

The annual payment of the instalments on these several sums was received by the United States until 1912 when the government at Washington calculated that it had received or was about to receive all that it was entitled to. It therefore remitted all the indemnity over and above the actual damages incurred. The Chinese Government, as a mark of appreciation of such action, arranged for the education in the United States of certain Chinese students, whose support was to be paid out of the indemnity funds thus remitted.

In a general way, the facts are as given.

Yours, etc.,

GEORGE E. ANDERSON.

Talking of indemnities brings to mind the historic wrong perpetrated on China by Germany in the looting of the famous bronze astronomical instruments from the precincts of the Forbidden City at the time of the Boxer uprising. The Allied Powers in their march on Peking had agreed that there should be no vandal thievery. But Germany was not to be bound by any such promise. At the direction of the late Field Marshal Count Waldersee these astronomical treasures were shipped to the ex-kaiser, who had them set up in the grounds of his palace at Potsdam. A few of the relics were also sent to France but were speedily returned to the Chinese. Germany, or the ex-kaiser, has never followed this righteous example. But the Peace Conference at Versailles will doubtless right this wrong, and the priceless fourteenth century instruments will once more adorn their proper setting in Peking.

A TRIP THROUGH JAPAN

NAGASAKI

BY an approach that was beautiful we entered Nagasaki Harbor on a Saturday afternoon. On the left is a Catholic church, with a background of high hills, and set in the midst of luxuriant vegetation. I was fortunate in having as a fellow traveler a medical student from the Hong Kong University. He knew Japan well and gave me many "pointers." Across the harbor we witnessed a very unpleasant sight—women coaling ships. There appeared to be hundreds of them, almost naked, passing baskets of coal from one to the other up ladders.

The population of Nagasaki is about 175,000. With few exceptions, there are not the objectionable odors in this city that are experienced in some Chinese towns. As regards public security, I may say that I would rather stroll about any city in Japan at all hours of the night, alone, than run the same risk in any city in Europe or America.

It was in Nagasaki that recent workers in the missionary field discovered evidences of the Catholic faith that had been planted there early in the sixteenth century by the great Jesuit missionary, St. Francis Xavier. Though he had died a few years after beginning his missionary labors in Japan, it was discovered that so thoroughly had the seed been sown that some of his followers continued to observe—and to some extent practice—their faith in secret during a period of over two hundred years. That St. Francis Xavier's success was remarkable was also proved by the fact that certain Japanese converts to Christianity made a pilgrimage to Rome, to visit the Pope, in the latter part of the sixteenth century. Indeed, the spread of this new religion aroused fierce jealousy among



Pearl Divers at Mikimoto



Straits of Shimonoseki



Tea House, Yokohama



Street Scene in Osaka

SCENES IN JAPAN



Rural Scene—Method of Transport



Balsumati Street, Yokohama



Mississippi Bay at Yokohama



Temples at Nikko

SCENES IN JAPAN

the Japanese princes, and as a consequence about two thousand Japanese Christians were crucified, while others were deported to the Philippines. Finally, Christianity became almost extinct in Japan and for more than two centuries there was very little evidence of it.*

In the middle of the nineteenth century the British, Dutch, French and Americans endeavored to establish communications with the Japanese Empire. The Americans were the most successful, for in 1854 Commodore Perry opened up Japan to American commerce. Shortly after that, American missionary societies launched out in numbers and prosecuted their labors in an energetic manner, which is now testified to by the thousands of missionaries and teachers of various denominations who are working zealously in the Japanese Empire. Freedom of conscience is extended to all religious sects in Japan, and so far as I could observe, missionaries were satisfied with existing conditions.

One Sunday I visited an exhibition of Japanese manufactures in Yokohama, and there met an American missionary. Talking about sectarian matters, he stated that there were five hundred Protestant missionaries in Japan, who claimed 70,000 Christians in their fold. Of Roman Catholics, there are also 70,000, while the Greek Catholics number 35,000. Facing facts, there is no use in disguising the general impression existing among white men who live in Japan: They consider it a waste of time to attempt to convert Japanese adults.

No Caucasian can tell what a Japanese is thinking about. A Buddhist may grow indifferent to Buddhism, but much of his apparent zeal for Christianity is feigned. And many of our yellow brethren do not seem to know exactly what creed they follow. This, too, may be subtlety. As an instance, my courier, who was brought up a Confucianist, told me he had joined the Shinto religion two years before, because his wife's

* When visiting the Jesuits' Church at New Orleans, Louisiana, I observed a tablet in memory of The Blessed Charles Spinola, who, at Nagasaki, in the sixteenth century, died a martyr to his faith.

father was of that faith. From his experience, as he described it, my impression was that he had adopted Mormonism. An idea of his deep piety may be gathered from the following incident:

We left the train at Kyoto and took two rickshaws for the hotel. Passing an attractive brick church with two crosses, I expressed a wish to see the inside. We stopped and entered. There was the conventional aisle up the center of the church, and a gallery. My attention was drawn to three young ladies present. One was playing the organ, and the other two were occupied with children, one of these playing with about thirty of the youngsters, the other teaching some of them. The guide and I questioned the three Japanese lady teachers, and tried to find out what denomination owned the edifice. Not one of the three knew which was the sect they belonged to; they could only say that it was "American church." I asked the guide to find out who furnished the money to build the church. His reply was:

"Some d—— fool Americans who think they can convert Japanese!"

Just as we find the Jap puzzling to our ideas, he likely returns the compliment in full. Australia at one time passed a law prohibiting negroes, Japanese and Chinese from entering the country, but continued to send missionaries to the Flowery Kingdom. This treatment puzzled the Japanese, for they could not see why the Australians took the trouble to dispatch missionaries to them, to assist them to get to heaven, yet refused to allow them to enter Australia. There is an air of good logic in that. Speaking of Australia, the Sydney University has recently established a chair for teaching Japanese, doubtless with the same motive that caused America to encourage the teaching of Spanish—trade expansion.

Shintoism, the native religion of Japan, is closely bound up with the history of the country. Both Buddhism and Christianity have been imposed from without, but Buddhism has been to Japan what classic antiquity and Christianity have

been to the West, which is to say it brought Chinese civilization and a better religion than the native form. The most probable story of its introduction is that in 552 A. D. a king of Kudara, in Korea, sent pictures of its sacred history to Emperor Kimmei (540-571), and that in this fashion the new teaching fell upon fruitful soil. But it met with opposition. Emperor Bindatsu (572-585), in consequence of the outbreak of an epidemic persecuted the Buddhists and forbade the practice of their religion. A change came about, however, when in 587 Prince Shotoku built a great Buddhist temple and did everything to encourage foundations and organizations for works of mercy and charity.

Emperor Temmu (673-685) finally gave the new doctrine an informal recognition and ordered the erection of Buddhist temples in every province of the empire. Despite this impetus, Buddhism met with early disintegration and was broken up into six sects as hostility between it and the Shinto faith grew more bitter.

After the antagonism to Christianity in Japan, as disseminated by Saint Francis Xavier, its path became less difficult in later centuries. The Reverend George Ensor was the first missionary sent there by the Church Missionary Society of Japan, arriving in 1868, while the Reverend Arthur W. Poole was the first bishop of the Church of England in that country, receiving his appointment in 1883.

Much valuable information is obtained from the Far East missionaries when they return to visit their homes in America. They are very agreeable fellow travelers. Aside from any question of converts to Christianity, they claim that the labor of missionaries has been the first and foremost means of bringing Western civilization into the Orient. They point out that while the Japanese have not taken cordially to the principal features of our Christian religion, they have copied much of the latest scientific methods of America and Europe. Christianity and Science, the missionaries claim, go hand in hand, and it is not their fault if Science makes the greater impression.

I acquired some interesting data from a young passenger named Wilkinson, a member of an old family from South Carolina. His father was a surgeon and missionary at Foo-chow, a city of 500,000 inhabitants; he received a salary from the Foreign Missionary Society, and was allowed to practice medicine as well as to preach the gospel. A brother of his was studying medicine at Johns Hopkins University in Baltimore and later intended also to enter the mission field in the East. Knowledge of medicine is of great value to a missionary.

Young Mr. Wilkinson informed me that there was no desire or opportunity for corruption among the missionaries; but when one of them is allowed a furlough, there is no law against his trading if he so desires. The Chinese, he said, like America at times and will salute her flag. But they have a lurking hatred against England for forcing opium into China and for the taking of Hong Kong. They hate Japan also for taking from them Formosa, an island of 14,000 square miles, which produces most of the world's camphor supply. The Chinese dislike France because she got hold of rich mines in western Manchuria. It follows that they also dislike Germany because she got the concession to Tsingtao, which is four hundred miles from Shanghai. One of the first things the Germans did on getting the concession was to open up a brewery. Incidentally, the sad thing to relate about the English in Hong Kong is their inability to support a local brewery. The industry was begun but had to be sold, being dismantled and shipped to Manila. While talking of industry in China, I want to say that the mission stations there produce fine Irish lace-work; the missionary teachers have taught the Chinese women the art, and now a large income is derived from the manufacture of this exquisite lace.

Missionaries' zeal is often in evidence in other places beside their own humanitarian fields. So anxious are they at times to officiate at sea on a Sunday, that I have known five of them to seek the captain's sanction that each might have

precedence in conducting religious services. On one occasion, *The Persia* was traveling west and approaching the 180th meridian of longitude, when, in order to offset any disputes between his missionary passengers, the captain crossed the line on Saturday night, and dropped Sunday out of the reckoning. Jumping in this fashion from Saturday to Monday prevented any discussion as to religious services, so everybody was happy.

In the cities of the Far East there are no "pubs" or saloon bars as we understand them in America and Australia. Liquor is sold in large family hotels in Hong Kong, Nagasaki and similar centers, but I never saw a man drunk in China or Japan. During 1908 the Japanese hotel keepers laid in a stock of wine and liquors in expectation of a visit of a thousand American excursionists on the steamer *Cleveland*. Coming from the West, she touched at the ports of Nagasaki and Kobe, but for some reason or other the passengers failed to display any extraordinary thirst. But the wily yellow brother was ready with a scheme, for upon hearing the "dry" news, and to create a demand for strong drink, the Yokohama hotel keepers caused notices to be displayed which read: "Owing to the presence of microbes in the water, visitors are warned against drinking it without diluting."

Japan is a small country, having but 147,655 square miles in its area. Japan is very hilly, and little terraces are formed on the slopes for cultivation, as in Italy and Switzerland. But a very small portion—maybe half—of these hills is rich enough to produce any abundant crops, hence rice and fish remain the chief articles of Japanese diet.

In Nagasaki we visited a Buddhist temple, a huge, roomy edifice the floor of which was covered with matting. Nobody was present save the choir, which consisted of a big bronze drum about the size of a hogshead, out of which one obtains "music" with a baton. In front of this temple was a tea-garden under some trees. Pretty Japanese girls flitted about serving the cup that cheers. One distinguishing thing in this

particular tea-garden was a rubber-tree planted by General U. S. Grant in June, 1879.

On my tour of investigation I visited a large building in which were displayed samples of the products and manufactured goods in the Nagasaki district. It is astonishing how successfully Japan has reproduced the manufactures of Europe and America. They have electro-plated ware, cruets, cutlery, fountain pens and numerous other familiar articles of Western devising. But there are rarely any chairs to be seen except in the hotels. The Japanese do not seem to take to them. Another feature of the life I noted, in passing: No attention whatever is paid to Sunday, work going on just the same as it is on any other day.

THE GEISHAS

Of course, everybody has heard of the famous Geisha girls of Japan, and sharing the universal curiosity about them, I wanted to find out all I could of these far-famed and fascinating ladies. Therefore, an officer, a lawyer, his wife, a doctor and myself made up a party and went to a tea-house after dinner to witness a Geisha dance or entertainment. The proprietor of the place sent for five of these girls. When they appeared I was struck by their youthfulness, and I ascertained that they were eleven, twelve, thirteen, fifteen and eighteen years of age respectively. All of them were garbed in quaint costumes. Two played stringed instruments and took turns singing. The younger girls were equipped with drums shaped like an egg-boiler. The best thing about the tunes was that they did not last long.

The little dancers wielded fans and sticks with pennants attached, and indulged freely in bowing on the matted floor. Tea, loquats, cakes and soft drinks were brought in. Beer might be had to vary the refreshments if it was ordered. Altogether, the show to me was monotonous and the singing very ordinary.

For years I had heard about the Geisha dancers of Japan,

so I had expected something artistic, or at least "atmospheric," in the way of song and terpsichorean performance. I had seen the native Indian dances, the Hula Hula of Hawaii, the Haka Haka of New Zealand, the Siva Siva of the Samoans—aye, I had seen the students' ball in the Latin Quarter, and had known Paris in the days when Cora Pearl was acclaimed as the reigning queen in the Jardin Mabille. But what a disappointment was the Geisha girls' renowned art!

Thousands of people who have never visited Japan, as well as thousands who have, are impressed with the fact that the Geisha is a real national institution. The subject is of sufficient importance for me to quote a portion of an article written by Professor Hiranuma, of the Waseda University, Japan, dealing with it. This writer expresses astonishment at the great increase in number in Tokyo, and elsewhere of the Geisha. He says:

"Originally, the profession of the Geisha was called into requisition in the old Yeddo days to amuse and assist at saké" (the native wine) parties, by music and dancing. When the Yoshiwara was the center of social attraction, the first class courtesans were women renowned for their education and accomplishments, no less than for their personal beauty, and the place used to be frequented by respectable 'Samurai' and literary people. At the parties held by these men the Geisha was an indispensable concomitant, and did much to enliven the entertainments. In those days, however, the Geisha confined herself strictly to her profession, indiscretions on her part were few and far between. The Geishas depended solely on their art and wit for their reputation.

"From the obscure position she occupied for many centuries Japan has emerged as a civilized world-power, and this change has brought in its train, among other things, a great increase in the number of young women who are licensed to engage in the profession of Geisha. These girls probably number more than five thousand in the city of Tokyo alone. If they confined themselves to the business for which they were

primarily called into existence and are licensed, there would be little cause for objection.

"Nothing could be more convincing than the official census to show the growth of the Geisha in Tokyo in recent years. Here are the figures:

	<i>Number of Geisha</i>	<i>Number of Machiai</i>
1898	2,646	422
1901	3,122	511
1906	3,315	687
1907	3,953	784
1908	4,140	826
1909	3,938	883

"The above figures are exclusive of the girls of the suburbs of the city. It will be seen that the number of Geisha in Tokyo increased by something like fifty per cent. during the eleven years under review, while Machiai more than doubled their number during the same period. The figures given relate to the condition of things in Tokyo, but it is only reasonable to assume that a similar state of affairs exists in all cities and towns in the country.

"This demonstrates the futility of the system, begun in the Tokugawa period, of segregating or confining vice to some particular quarter. The problem of successfully controlling vice severely taxed the brains of the Tokugawa administration. In such circumstances the Government was only too glad to accept a proposal for the establishment of licensed quarters, and to confine vice within those limits. For many years the system worked satisfactorily, at least to outward appearances, in the sense that it prevented the public display of vice. The unmistakable tendency in recent years, however, is for things to hark back to their original condition.

"The handwriting is on the wall, and unless the Japanese take heed of the warning before it is too late, the Geisha may prove the ruin of the country. It may be argued that all Geisha are not so depraved as has been depicted, and that there are commendable exceptions. It is said that the maximum

income of a first-class Geisha in Tokyo that she can earn by legitimate means, is 3,000 yen a year (£300=\$1,500), and against this her annual expenditure is roughly estimated at 3,800 yen (£380=\$1,900).

"A movement is taking place in Japan to elevate the standard of morality. Osaka will not replace the houses already destroyed by fire, and is opposed to granting any further concessions to such houses. Here, at least, the benefits of Christianity are in evidence, for it is owing to the influence of the Christians that this reform movement has started."

We left Nagasaki on Sunday, and passed through the Straits of Shimonoseki into the Inland Sea of Japan. The straits are about a quarter of a mile wide. The Inland Sea is some two hundred and forty miles long, so we traveled through it all day. It was Springtime, and numerous islands as well as the shores were covered with luxuriant vegetation. I was delighted with the scenery. Often had I heard of the attractions of the Inland Sea of Japan, but the actuality far exceeded my expectations.

Our first port of call was Kobe, a very pretty city, three hundred and sixty miles from Yokohama. On a short visit, such as I made, it is difficult to arrive at any definite estimate of existing conditions. One hears too many misleading statements.

At Kobe I had the pleasure of meeting Mr. Suttor, the Australian trade commissioner, who supplied me with information most valuable to me in my trip through Japan. From Kobe, I went to Kyoto, and here I put up at the Miyado Hotel, one of the largest in the country. I noticed in many of the hotels that the rooms on the ground floor are all rented to local merchants, who use them to display silks, satins and various other commodities. Kyoto, with a population of 400,000, is held to be the center of the manufacture of Japanese art. Forty miles distant is Osaka, a city of one and a half millions, the chief products of which are metal goods, carpets, rugs, etc.

I was surprised at the large number of Germans I met with

in the trains. Quite sixty per cent., if not more, of the first-class passengers were unmistakably German. Many of them live at Kyoto and visit Osaka daily on business. In their efforts to secure the Japanese markets German manufacturers follow their clever policy of giving twelve months' credit.

YOKOHAMA AND TOKYO

The same conditions as those outlined exist in Yokohama (population, 325,000) and in Tokyo, which is eighteen miles distant from the former city. Visitors are struck by the up-to-date character of many buildings in Tokyo. On the whole, the architecture may be said to be quite modern. Tokyo is the capital of Japan, and has a population of 2,000,000. Here the emperor has his palace in a tract of six hundred and forty acres. About three hundred years ago a moat was dug about the estate to keep off invaders.

I visited Lieutenant Keysar, U. S. Marine Corps, attaché of the American embassy at Tokyo. With Lieutenant Hoadly, he occupied a beautiful residence. The officers drove me around the city and described the chief points of interest.

The breakwater at Yokohama caught my attention, for it is built from the money that was paid to the United States by Japan as an indemnity which came of the trouble that Admiral Perry had at Moji, at the Straits of Shimonoseki. A civil war was then in progress. It so happened that the English, French and Americans crossed a religious procession, and were fired on by the Japanese.

I discussed this question of the indemnity with a Japanese steamship captain, who denied the fact, and who asserted that any money spent on the Yokohama breakwater was Japanese money, pure and simple. But it does not seem so simple to me. I got my indemnity facts from Genji Kuribara, clerk in the office of the American consul-general, Mr. Salmon, of Yokohama, who was very kind and hospitable to me during my stay there. Further regarding this breakwater incident, I heard the Japanese consul-general admit it at a Fourth of July ban-

quet at Sydney, Australia, in 1917. But I must add that I heard the indemnity matter again denied by Taizan Tsuji, whom I met at sea. His statement follows:

"Regarding the statement about the erection of Yokohama breakwater, Japan: This statement is questioned by myself. The sum for the construction of the Yokohama breakwater—I claim that the money for constructing same was voted by the Parliament of Japan, 1900–1904. The incident of Commodore Perry occurred about sixty years ago, while the breakwater was built after 1900.

"By Taizan Tsuji, Se. B.
(Tokyo University)

"S. S. *Niagara*, at sea, September 16, 1918."

My curiosity being aroused over these conflicting accounts, I resolved to pursue the truth, so a friend of mine, Charles G. Ross, upon my behest, investigated the matter in the official records at Washington. He reported:

"The friendly attitude of the United States toward Japan was well illustrated in 1883, when the American Government voluntarily returned its share of an indemnity of \$3,000,000 exacted of Japan by the treaty powers under the terms of a convention signed in 1864. A full record of the events leading up to that convention, and the subsequent proceedings which culminated in the sending of a draft for \$785,000.87 to Japan are on file. The following brief account is based on records and upon the authority of John Bassett Moore, historian:

"In defiance of treaties made with the treaty Powers by the Tycoon's government of Japan, the rebellious Prince of Nagato, having possession of the fortifications commanding the Straits of Shimonoseki, closed the passage to the Inland Sea. At the request of the Tycoon's government, the United States, Great Britain, France and Holland proceeded to open the straits by force. A joint naval force destroyed the batteries of Chosu and compelled an unconditional surrender. The Tycoon was given the option of paying the expenses of the expedition or of opening more of his ports to commerce. He chose the former alternative, and accordingly entered into a convention whereby the Japanese Government promised to pay the four powers \$3,000,000, "to include all claims of whatever nature for past aggres-

sions on the part of the Nagato, whether indemnities, ransom for Shimonoseki, or expenses entailed by the operations of the allied squadrons." The convention was signed at Yokohama on October 22, 1864.

"The indemnity was paid and divided among the four Powers. In the diplomatic records of the United States there appear thereafter frequent references to what became known as the 'Shimonoseki affair.' Finally, by an act approved February 22, 1883 (by a coincidence the birthday anniversary of Washington), Congress directed the President to return to the government of Japan the United States' share of the indemnity, after deducting a certain amount for the officers and crew of the U. S. S. *Wyoming* and of the steamer *Takiang* for services in destroying hostile vessels in the Straits of Shimonoseki in 1863 and 1864. It was made plain in the proceedings of Congress that the American Government was actuated by a desire to give tangible expression to its good will toward Japan and to promote friendly relations between the two countries.

"In accordance with the act of Congress, a draft for \$785,000.⁸⁷ on the Treasury of the United States was sent to the American minister to Japan (John A. Bingham), and by him delivered, on April 23, 1883, to the Japanese Government."

I went into many manufacturing concerns in Kyoto, and came away convinced that there is a lot to learn from Japanese methods of business. At times the manufacturers quote foreign wholesale buyers higher prices than one pays for the same goods from mercantile brokers, through whom much of the export business is conducted. Besides, one could not always depend on goods being supplied a second time at the same price. If, for example, the merchants supply a sample of doorknobs, and quote a price, and an additional order is given for ten or fifty gross, they will in all probability increase the price ten per cent. Again, in a retail store, a lady may buy a tea-set which, later, may take the fancy of some of her women friends, and they, visiting the same store to buy a similar set, are likely to find the price a few shillings more or less. However, if Australia or America were to attempt to produce the goods peculiar to Japan, they would easily have to pay ten times the price for manufacture.

At Kyoto I saw women in the river-beds—the water was low—up to their knees in mud and water, gathering fine gravel. I saw also seventy or eighty women in that river acting the part of pile drivers. Each of them had hold of a rope reeved through a pulley by which they pulled up and let go of a heavy weight. In this fashion they packed concrete for the foundation of bridge-piers.

On the other hand, there is a canal in Kyoto which in its course flows through three tunnels seven miles long. No locks are needed in the system of operation, for the boats are loaded on electric trucks which convey them from one canal level to the other. This entire project was schemed and carried out by a Japanese engineer between the years 1835-1850, without foreign aid, and at a cost of 150,000 pounds sterling. Boats carrying passengers on this canal ply through tunnels dimly lighted, which produces a rather weird effect.

Food is always a vital subject wherever one goes up and down the world. In Japan I was struck with the poor quality of the butter supplied at the best hotels. In consequence of inferior butter, some foreign families resident there never eat it. Beef must sometimes prove a difficult product. In 1913, for instance, Japan was slaughtering sixty thousand more beef-cattle than were produced by the natural increase. Strawberries were not served in hotels at which I stayed, although this was the season for them. I heard of several persons becoming ill from eating them. I saw no good apples of local cultivation, but the season was still early. Peaches on the trees were wrapped in paper that had been soaked in the juice of persimmons, to protect them against insects.

Japan is brought closer in touch with other countries every year by fast steamers under the Japanese flag. Although the United States paid a small subsidy to her ships carrying mails and cargo, on condition that they should be manned by white men, the amount was not sufficient to make up the difference between white and Chinese labor. Because of this, the Pacific Mail Steamship Company carried Chinese stewards and part

of the crew were also Mongolians. The Pacific Mail maintained a splendid service until its ships were "frozen out" by what is known in America as the La Follette Mail Bill.

One of the Empress steamers made the trip from Yokohama to Vancouver in eight days, eighteen hours and thirty-one minutes. That was "going some," to use an American slang phrase. Once, a cargo of raw silk worth a million dollars was landed at New York from Yokohama inside of fifteen days. Silk from Japan is often consigned to Paterson, New Jersey, where, in the big mills located there it is manufactured into beautiful fabrics and patterns.

The enterprising Japanese have produced armor-plate, but a few years ago the principal parts of their warships were manufactured in other countries and assembled in Japan. The Armstrongs of England sunk two million pounds in Japan in trying to establish gun works and ammunition plants. Japanese investors put a million pounds capital into the concern, also.

Characteristic of Japanese cities are the large storehouses which they call "Godowns." It is amusing to see buildings in various cities bearing a sign which reads: "Standard Oil Godown," when we know that that commodity generally goes up.

Traveling through the country one sees men and women busily engaged in planting rice where water is several inches deep. Japanese irrigation is so advanced that they irrigate plots on side-hills, one above the other. In places, during the same year, a crop of barley may be grown on the same ground as that occupied by rice, between the rows of the latter. Where people are too poor to eat rice they grind barley and manage to live on it. Varying values have been placed on good rice land, but six hundred dollars an acre will buy the best there is.

The population of Japan in 1913 was estimated at 60,000,000, but this included 8,000,000 Koreans, who are proud of their own racial distinction. Japan annexed Korea in 1910. The taxes average about ten yen, which is about one pound, or five dollars a head. That was in 1913. Formerly, the

taxes were much higher. As for me, I do not even see how they can feed themselves, much less an army abroad, which they do.

Generally speaking, I find Japanese stewards and servants much more independent than they were a few years ago.

A report that went the rounds to the effect that Japanese banks were filled with Chinese clerks is misleading. True, some Chinese are employed, especially in the Hong Kong and Shanghai Bank, of which there are many branches. But the Chinese clerk has not altogether ousted his Japanese rival. I noticed, during my peregrinations, that all grades of bank officers in both China and Japan smoke cigarettes in office hours continuously.

Chinese crews are inveterate gamblers, and the officers of the *Mongolia*, on which I booked, endeavored to suppress the vice. But their efforts appeared to be in vain. One evening I saw a yelling, gesticulating crowd on the forward deck playing the favorite Chinese game of fan-tan. Piles of silver and gold were stacked on two boards, and excitement ran high. Suddenly a mate approached without attracting any attention and kicked over the boards violently, with the result that showers of tinkling coin were scattered in every direction. It may have been this money shower that brought it to mind, but my thoughts leaped to the rickshaw men and their charges. One of them will pull you about Yokohama all day long for seventy-five cents. Think of how far a five-dollar bill or a pound note would go at this ridiculous rate of transportation! Indeed, you seem to get your money's worth in some things. In exchange for a pound note sterling I got nine hundred and seventy-four cents, or half-pennies.

The third night after leaving Yokohama the chief steward of the boat, Mr. Donohoe, vanished overboard, and no cause was ever discovered for the act to my knowledge. Our trip took seventeen days from Yokohama to San Francisco, stopping one day at Honolulu, for which port we had two thousand tons of cargo.

I have heard it said that the United States is lax in providing embassy buildings for her diplomatic representatives abroad, but she owns her consul's office in Yokohama, and her embassy buildings in Tokyo. These, together with the consular quarters in Turkey, were the only foreign property of the kind owned by the American Government in 1913.

Almost all of the saloon passengers on the *Mongolia* this trip were German, American and English people. There were one hundred and seventy Jap passengers in the steerage, who paid five pounds fare from Yokohama to San Francisco.

Many of the choicest samples of Japanese plums grown in America and Australia are the result of the experimentation of Luther Burbank, of California, who crossed the Jap variety of the fruit with the English. During a conversation at my table a missionary told me that there was a saying in Japan that the only ripe fruit one gets is green corn.

FOREIGN RESIDENTS IN JAPAN

<i>Nationality</i>	<i>Males</i>	<i>Females</i>	<i>Total</i>
Chinese	8,977	2,890	11,867
Siamese	2	....	2
Turks	20	12	32
British	1,669	1,118	2,787
French	313	227	540
Germans	639	285	924
Russians	61	44	105
Austro-Hungarians	58	31	89
Swiss	65	37	102
Italians	38	25	63
Belgians	13	6	19
Spanish	43	23	66
Dutch	55	36	91
Portuguese	122	95	217
Danish	48	40	88
Swedish	24	16	40
Norwegians	12	5	17
Roumanians	2	5	7
Americans	917	783	1,700
Brazilians	1	2	3
Chilians .....	..	1	1
Mexicans	2	1	3
Total	13,081	5,682	18,763

In China I noted many evidences of Japanese activity and interest. Significant to me is the fact that large numbers of Chinese children are sent to be educated at Japanese schools. The Japanese are certainly a clever people and alive to all advantages. For many years Japan subsidized her mercantile marine to the extent of seventy-five per cent. of the running expenses—which demonstrates her clever commercial insight. If an impecunious Japanese inventor has a device, and makes known his need to the government, it will investigate the worth of his article, and if practicable, money will be advanced to him to make his invention and put it on the market.

THE NAVY AND MERCANTILE MARINE OF JAPAN

As there is a great deal of interest taken in the development of the Japanese navy and mercantile marine, I have made it my duty to secure the following facts and figures from two reliable authorities on the subject: the "London Daily Mail Year Book for 1905" and the Japanese Consul-General of Sydney, whom I consulted in 1917. In the figures I give for Japanese tonnage of 1895 and 1901, I could not ascertain whether they included or not the combined tonnage of the navy and mercantile service: 6 tons in 1860; 386,163 in 1895; 907,879 in 1901.

In reply to my inquiry, Mr. S. Shimizu, the Japanese Consul-General at Sydney, states on February 8, 1917:

- "According to the Sixteenth Financial and Economic Annual of Japan (1916), the gross tonnage of steamers at the end of 1915 was 1,621,205 tons, while the gross tonnage of sailing vessels on the same date, exclusive of figures for sailing vessels under 5 tons, was 671,273 tons."

Since the above date (1915) Japanese-owned ships have increased at such a rate that it is difficult to keep tab on them. However, I received further information in the following letter from the same accommodating Mr. Shimizu, dated March 1, 1917:

"At the time of your first writing, on the 8th ult. my copy

of a Japanese Year Book, 1915 (the latest edition of which I have a copy) was not in the office, having been lent. It has since been returned, and I have made a comparison of the figures given therein, up to the end of 1914, with those shown in your letter under reply. The classification is different, the information being in the following form:

Battleships	11
Battleship cruisers	8
1st class cruisers	9
2nd class cruisers	13
1st class coast defence ships	6
2nd class coast defence ships	12
1st class gunboats	4
2nd class gunboats	5
1st class torpedo boat destroyers	2
2nd class torpedo boat destroyers	12
3rd class torpedo boat destroyers	47
1st class torpedo boats	16
2nd class torpedo boats	15
Submarines	13
Total	<hr/> 173

As I said before, it is difficult to keep up with the expansion of the Japanese navy or mercantile marine. Quietly, she is reaching out for the commercial trade of the islands of the Pacific. The Nippon Yusen Kiasha (Japanese Steamship Company) has been selected to trade between Yokohama and the South Sea Islands. They chartered the German steamer *Bohemia*—that was confiscated by the Japanese Government—and the vessel went on her maiden voyage for them in April, 1916.

Cheaper freight-rates are quoted by the Japanese for the transportation of raw materials from the various islands to her shores, where is found a ready market. As you know, perhaps, Japan is devoid of many raw products, and is therefore compelled to import them. She imports from the islands chiefly trochus shell, sugar and copra.

In the Gilbert, Marshall, Fiji and Caroline Islands (especially those islands where Germany obtained her raw products) splendid timber lands are being cleared and burned to make



Ueno Park, Tokyo



The Jinrikisha



View of Nukualofa, Tonga
SCENES IN JAPAN



Courtesy Popular Science

CULTIVATION OF PEARL OYSTERS IN JAPAN.

The work on the oyster farm is done almost entirely by women. Here are women divers, with no other equipment than their baskets, bringing up pearl-oysters from the deep-sea beds.

way for cocoanut plantations. Notwithstanding the possibility that these islands may come under British rule, the Japanese will have secured a big portion of their products before any other country will have time to become established. In the past Great Britain and her colonies have been hampered for want of ships, which, according to present plans, is to be remedied.

THE JAPANESE ABROAD

Hosts of writers and travelers have described the Japanese at home. I want to say a word here about them when away from home. For years, I have met them all over the world, and I find them very courteous and polite. In the introduction to this book of mine I claim the right to wander to other places than the Pacific, for comparison or deduction. Therefore, the reader may or may not be surprised to learn that I came across an interesting estimate of the Japanese character in what I might call "Confessions of a Niagara Falls Cab Driver."

Circumstances necessitated my visiting the Falls frequently for some years, and I fell into the habit of chatting with the cab drivers who, among their other prerogatives, have opportunity of meeting men from every quarter of the globe. Years ago, before trolley lines and taxis, the volume of sight-seers, domestic and foreign, used the ancient and honorable horse-cabs.

My informant told me that parties of Japanese were the most lavish patrons. He said that up to the time of the Spanish-American War, the Spaniards were good spenders; that Bostonians (called "Boston crackers") earned the reputation of being tightwads; that Chigagoans were not curious enough; but that the Japanese were "easy." The drivers took them to resorts where they received a percentage on all the victims they landed at such places as the Whirlpool Rapids, Table Rock, the Whirlpool, the burning spring, as well as at fur and curio sellers, restaurants, etc.

As guileless tourists, the Japanese gentlemen spent freely and left behind a good impression. They did not care about a few paltry dollars provided they left a herring across the road of their real motives in traveling. It was about this time that the Niagara Falls water-power was being transformed into electricity, and the wily sons of Nippon had come to study and learn the magic lesson.

Among the large users of electricity at the Falls during those days was a company organized for the production of aluminum from ore brought from the State of Georgia and other regions. The visiting Japanese made note of many things in the manufacturing end, and gave close scrutiny to how the water was carried through flumes to the vertical turbines, thus producing electric power.

Just to illustrate the study of this one article of aluminum that they made: Some time later I happened to be shown through an aluminum works at Kensington, near Pittsburgh. Piles of ingots lay about. I asked questions. I learned that this factory at one time shipped to Japan quantities of manufactured aluminum ware such as rolled sheets, wire, etc., etc. But one day a party of Oriental tourists called at the plant and were shown the process of manufacture from ingots to sheets and wire. After a lapse of sufficient time to enable the Japanese visitors to reach home, the Kensington aluminum makers noted that Japan ceased ordering the finished goods and was importing the raw material.

Those clever students had made excellent use of their opportunity and in a single visit had grasped the essential secrets of turning out articles of aluminum manufacture. As a last word I may say that Japanese visitors are not being shown about factories so freely as in former years. The English and Americans are "on" to them.

FOREIGN PROPERTY OWNERS AND TAXES IN JAPAN

An American actuary in Yokohama has given me much valuable material on this subject of ownership of property by

aliens in Japan. The barriers against foreign property-holders are not generally known.

Japan was opened up to foreign trade and residence about fifty years ago. This action was not voluntary, neither motives of friendship nor the desire on the part of the Japanese people or government for intercourse with other nations actuating them. Under the persuasive influence of the guns of foreign warships it was accomplished. And the first so-called Conventions (treaties) with the United States, Great Britain, France and Germany were made under the same powerful influence.

From the very beginning, the citizens of foreign countries (generalized under the term "Foreigners") were shown that they were "undesirables," a necessary evil, to the extent that in the few ports open to trade by treaties they were not permitted to reside among the Japanese in the towns proper; they had to dwell apart in the so-called "Foreign Settlements," restricted areas on the outskirts of the towns selected by the Japanese Government. Only in such settlements in Japan are foreigners allowed to buy land and erect their buildings. Nor can they buy this land as freehold property—as all Japanese-owned land is held in Japan—but it was especially arranged by the aforesaid conventions that the land so purchased by foreigners should be held under leases in perpetuity.

Foreigners were not permitted to have contract dealings with individual Japanese, especially as to land, and the Central Government therefore first acquired the land to be set aside for the Foreign Settlements from the Japanese owners, and then granted the lots to foreigners as applied for them as a direct grant from the Central Government. Had foreigners been permitted to buy direct from the owners, they would, as a matter of course, have succeeded to the freehold title, putting them on an equal footing with the Japanese. The *modus operandi* adopted by the Government did away with any such risk and made the foreign property owner a leaseholder only. But foreigners were satisfied with these leases because the

land granted thereby was granted in perpetuity, which to all intents and purposes is as good as a freehold grant, and no difficulty would ever have arisen if the Japanese Government had kept to the terms of these leases.

In all cases there was an upset price paid to the Central Government by each applicant at the time of the grant of the land, and an annual payment, denominated "ground rent"—which it was not—was provided to be made to the Central Government, not as rental, because the land was bought and paid for, but to cover for all time the land tax that might be assessed on freehold property, and especially all municipal charges. This ground rent then became a commuted payment which, if made annually, would cover and dispose of all taxation of these two classes.

For nearly forty years, or up to July, 1899, when the revised treaties came into force—which new treaties, by the way, did not in any particular alter the terms of perpetual leases—the Central Government regularly recognized that the ground rent payment received by it was paid to satisfy all charges incurred in municipal government. No complaint has at any time been made by the Central Government that the receipts from the ground rent payments were not sufficient to pay both the land tax and the municipal charges which it had assumed and guaranteed to pay.

In fact, it is a matter of record that when the Conventional Agreements were signed, the question came up as to the amount at which the annual ground rent payment should be fixed. The amount named by the Japanese negotiator was found to be approximately seven times the tax paid by the Japanese residents on higher and better land. Sir Harry Parkes, the foreign negotiator, objected strongly to this high-handedness, but on the understanding that the charge made was a commuted tax charge covering for all time the land and municipal taxes, he agreed to it though he still emphasized its exorbitance.

There can be no question, then, in view of the facts stated,

that the Japanese Government had arranged by treaty to accept the abnormally high ground rent as a commuted payment of all land taxes and all municipal taxes and charges, and this naturally was understood to preclude the collection of further taxes of these two classes for all time, or so long as the high ground rent was annually paid.

In July, 1899, new treaties, abolishing the old conventions, came into force. The status of foreigners was changed considerably, inasmuch as foreigners were placed under the jurisdiction of Japan and thus lost that freedom of action which they had enjoyed under the consular jurisdiction. But these treaties did not in any way change the terms and conditions of the perpetual leases granted to foreigners. On the contrary, they made specific provisions that no taxes, charges or conditions, other than those stated in the leases on perpetuity, should be imposed in respect of or on account of the properties which had paid the commuted tax.

Notwithstanding this specific provision and the fact that the new treaties require the confirmation of the leases and a continuation of the protection to the properties, the Japanese Government, since 1899, has imposed on foreigners, first a house tax, and, in addition, various municipal taxes over and above the annual ground rent payment. Foreigners, of course, refused to pay these imposts, but the Japanese authorities forcibly collected the house tax for three years, up to 1902, when the foreign governments finally moved in the matter in answer to innumerable appeals through the various legations. Thereupon the Japanese Government agreed to submit the question of the house tax to the Hague Tribunal. On May 22, 1905, the award of the Hague Tribunal was given in favor of the foreign contention.

The Japanese Government, in due course, refunded the moneys illegally collected as house tax, but still insisted (1914), in the face of the Hague award, that it has a right to impose and collect municipal taxes. It does not deny that the Court has decided that its action is illegal, but bases its demand

for the payment of these taxes on a mere technicality, namely, that the reference made to the Hague Court contemplated the decision by that Court of the question as to the validity of the house tax only, and that in covering in the award any further or related question, the Court has exceeded its authority under the reference.

Foreigners insist, of course, on the award being taken in its entirety, as covering both the house tax and the municipal tax, and they object to the municipal tax imposition as emphatically as they objected to the house tax. They object to it on the ground that it is illegal and has been declared so by the highest tribunal in the world. This objection has been formally and fully supported by a note of protest delivered by the governments of Great Britain, France and Germany to the Government of Japan.

To this note of protest the Japanese replied, asking for time and further discussion. So the matter rests. Meantime, the authorities have made every effort to enforce payment of these taxes, in some cases by the drastic process of distraint, while the Japanese press keeps forever inciting the people of their country against the "foreign tax dodgers."

HONOLULU AND HAWAII

HAWAII, the pearl of the Pacific! What a group of islands abounding with romance and beauty! Truly, this is the land of Arcadia, where fauns and dryads and all the other favorites of Pan must disport.

Of course it is not for me to wax eloquent over such a gorgeous place as this, for my eloquence would be puerile when compared with the wonderful word pictures of the islands which have been drawn by many gifted pens. But no book on the Pacific could be complete without some attempt at description and praise being given to the land of the leis, the ukelele, of sugar and pineapple plantations, or of the hundred and one things of interest that lure the tourist to Hawaii with the irresistible force of magic magnets.

The Hawaiian musicians that turn out to greet the tourists on arrival and also come to bid him Godspeed with the plaintive strains of Aloha Oi, the leis of flowers tossed around his neck by hospitable friends, the armfuls of curios offered by the dark-eyed, beautiful maidens on the wharf — these things, while I feel diffident about attempting to tell of Hawaii, compel me to devote a chapter to the islands.

Honolulu, two thousand miles southwest of San Francisco, is really an American city lifted bodily, as it were, from the mainland and dropped in the middle of the Pacific; for it has its street-cars, telephones, telegraphs, and up-to-date, attractive stores. And, yes, it has its majestic native policemen whose command of vehicular traffic is a wonderful thing to watch because of their grace. But when one has seen the native Hula Hula dance, it no longer puzzles one in seeing these policemen sweeping their arm-signals hither and thither, the while their bodies bend in pleasing unison.

When I passed through Honolulu in 1878 there were more telephones than in any other American city of the same size. When I passed through again in 1908 there were more automobiles in proportion than there were in any other city. And as a side remark I may say that if the price of sugar remains at its present high figure, I expect to find on my next visit to Honolulu more aeroplanes than in any other city of the world. Why not?

Honolulu might well be called the center-point of traffic on the Pacific. Visiting steamers generally spend the best part of a day there. Under normal conditions hotels and apartment houses are full of tourists. Stores and public buildings there compare most favorably with those found in cities of similar size in the United States. Private residences are constructed to suit the climate—semi-tropical, yet comfortable.

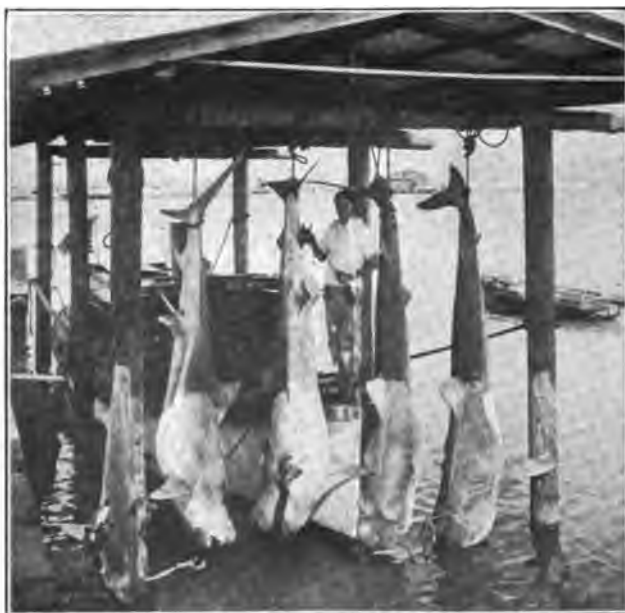
However, it is the people who interest the visitor more than anything else, probably. Next to Singapore, there are more mixed races in Honolulu than can be found elsewhere in the Pacific. Besides the natives, one meets Spanish, Russian, Koreans, Chinese, Japanese, Filipinos, Costa Ricans, Samoans, negroes and other islanders, as well as various other white races, including the Portuguese. Also you meet with the offspring of the intermarriages of these different races. It is interesting to watch, as I did, a school of a thousand children of these mixed bloods at play, or to try to guess the origin and mixture of the polyglot folk who crowd the street-cars or come out of the churches. All the bright-eyed, smiling children meet you with a cheery "Aloha!"

In order to see the city and its suburbs best while you have but the length of the steamer's stay in port to do so, it is advisable for passengers to arrange a party and hire an automobile to carry them to the places where everyone is supposed to go. To help out the visitor, artistic folders are issued by the Hawaiian Promotion Committee, giving all the necessary information.

I have visited Honolulu during most months in the year,



HAWAIIAN PINEAPPLE FIELD.



THE END OF A SHARK HUNT, HONOLULU.



BREADFRUIT—NATURE'S PRODUCT READY FOR THE OVEN.



HAWAIIAN TARO PLANT FROM WHICH POI IS MADE.

and my impression is that the city and its suburbs are always clothed in exquisite tropical flowers. The foliage is rich and luxuriant and the grass seems always green. Among the flowers are the *Rigia* (the scarlet umbrella fire tree of India), *Cassia Nadosia*, which have pink and white blossoms similar to apple blossoms, the golden shower of canary-colored *wistaria*, hibiscus hedges, with flaming red flowers, long rows of variegated croton shrubs, four varieties of *bougainvillea*, poinsettia of a deeper scarlet than I have ever seen—all looking vividly fresh from their supply of liquid sunshine.

Hawaii does not find it necessary to offer premiums to induce visitors to spend winters there. In some towns of Florida the newsboys make no charge for papers on a day when the sun does not shine, so sure are they of Old Sol. Hawaiian skies are always clear and the sun shines every day—even when the rain is falling, and from this phenomenon comes the term “liquid sunshine.”

Future generations of white Hawaiian Islanders have a great load of responsibility to carry if they are to maintain the reputation that the present generation enjoys for hospitality and geniality. Some of the visitors are certainly trying. I have known some of them, who were made honorary members of a country club, and who had the privilege of playing golf, only to be guilty of breaches of etiquette and annoy the regular members.

To aid cultivation of their crops, the Hawaiian planters maintain at their own expense laboratories equipped to assist in improvement of the quality of sugar, pineapples, coffee, bananas, etc. The Government also directs a farm for experimentation for improvement of crops and also to teach animal husbandry and kindred subjects.

Prior to the discovery of gold in California, the islands shipped wheat, potatoes, onions and other vegetables to the Golden Gate, but now sugar is king, the crop in 1916 returning \$63,000,000, while pineapple plantations yielded \$8,000,000, coffee \$298,000, and rice \$166,000.

When Captain Cook discovered the Hawaiian, or Sandwich Islands, in 1778, the native population was about 200,000. Hawaii was annexed to the United States in July, 1898, and created a Territory in 1900. A governor is appointed by Congress. The machinery of government is perfect and works very smoothly. Hawaii is represented in Washington by a local member elected by the people. The estimated population of the Territory, in 1916, according to Thrum's *Annual*, was as follows, from a board of health report:

<i>Race</i>	<i>Number</i>
American, British, German, Russian....	30,118
Chinese	22,100
Filipino	19,100
Hawaiian	23,450
Part Hawaiian	15,850
Japanese	102,479
Portuguese	23,990
Porto Rican	5,240
Spanish	2,920
Korean	4,734
Others	643
Total	250,624

HONOLULU: A MOTOR TRIP AROUND THE ISLAND OF OAHU

A charming motor drive of ninety miles can be taken around the Island of Oahu, via the Pali, where the troops of King Kamehameha drove those of King Kaina over the precipices to the valleys two thousand feet below. This road skirts the Pacific, and when you have covered about fifty miles, to the left you see the Mormon Tabernacle, which cost \$100,000. On a few miles more is the beautiful chalet of the Castle family, facing the rolling waves of the Pacific, and with bubbling fountains and marble statuary amidst a rich setting of tropical foliage.

Stopping at Haleiwa, one can obtain luncheon at an excellently conducted hotel, and then, if one wishes, hire a boatman to explore the bottom of the bay in a glass-bottomed steam-launch. Looking into the water through the glass, one



OLD ROYAL PALACE, NOW GOVERNMENT BUILDING, AT HONOLULU



SURF RIDING AT WAIKIKI, HONOLULU



SHOOTING FLYING FISH, HONOLULU



HAWAIIAN FLOWER SELLERS, HONOLULU

sees a vision of coral grottoes and reefs and caverns, separated by deep canyons with precipitous sides. In and out of these grottoes and reefs swim brilliantly colored fish of many shapes and sizes, some beautiful, some grotesque.

The country passed through during the motor ride is devoted for the most part to the cultivation of sugar-cane, pineapples and bananas. Water used for irrigating the plantations comes through a tunnel eighteen thousand feet long and seven feet in diameter, which cost \$2,000,000 to construct.

On all sides during the ride one sees the castor-oil tree growing, the oil from which is of great value. Being a vegetable oil, it will not burn, grind, or clog the delicate parts of machinery, nor will it freeze at high altitudes as will a mineral oil. This is the reason that castor oil is exclusively used for airplane motors. The oil is extracted from the bean produced by the tree, the red bean being the most valuable for the purpose.

TRIP TO THE VOLCANO OF KILAUEA

During the many years of my travel on the Pacific I had heard from Hawaiians and fellow birds-of-passage thrilling descriptions of this most famous volcano, but somehow I never had a chance to pay a visit to Kilauea. Not to visit this volcano while one is in Hawaii is like leaving *Hamlet* out of Shakespeare's play.

However, on my arrival in San Francisco, in 1917, en route for Australia, I discovered that owing to war regulations I would have to apply to Washington for a special passport before I could leave America. I missed one boat, and having some spare time before the departure of another, I decided to go to the Hawaiian Islands and see what was to be seen, in particular the Kilauea volcano, and later on get a direct boat for Australia.

I carried out my plan and landed in Hawaii for my sight-seeing tour. On a Wednesday I embarked from Honolulu for Hilo, two hundred miles distant, aboard a two-thousand

ton steamer. We sailed at ten o'clock in the morning. Fortunately one of our party was Mr. Frank Halstead, of Honolulu, who proved a compendium of local information, and answered every question with authority.

It was about four o'clock when we went ashore at Lahaina on Maui. The first particular surprise awaiting me was a big six-foot-four Australian, Mr. George Freeland, who hails from Frankston, Victoria. Mr. Freeland owns the hotel, theater and other interests on the island of Maui.

On landing I noted that this bit of the ocean resembled an extensive bay. Another of my earliest impressions was that on the hills and mountain-sides vast herds of cattle ranged. Upon inquiry, I was told that now the islands produce all the meat needed for home consumption.

About thirty miles inland is the Ulupalakua (Raymond McKee) Ranch of 37,000 acres, which carries 6,000 head of cattle, and the Haleakala (Baldwin Woodhouse) Ranch of 36,000 acres, which carries 5,000 head of cattle. The homesteads of these ranches are about 2,500 feet in altitude, but farther on the ranges attain a height of 6,000 feet. The Ulupalakua Ranch outfit slaughter their own cattle, and they have a refrigerating plant and a steamer fitted up with cold-storage apparatus. Thus they convey their meat to the Honolulu market. I learned that two-and-a-half-year-old bullocks will dress four hundred pounds of beef. Five other ranches on the islands are managed or owned by men from New Zealand, who left their own country many years ago. Why they should leave one of the most suitable cattle lands on the globe for a new and untried country is a puzzle to me.

We arrived at Hilo about seven o'clock Thursday morning. Breakfast over, we started out for the volcano, thirty miles away, where we arrived at about eleven o'clock. This haste is rather unfair to the curious, sight-seeing visitor. One of the things to take my eye were the eucalyptus trees, which any Australian would recognize at once. They thrive here very well at the altitude of 2,000 feet.

Hilo is a pretty tropical city. At a distance can be seen the highest snow-capped mountains in the Pacific, Mauna Kea, 14,000 feet high. In my opinion, the steamship company might have arranged for us to spend all forenoon in Hilo and still reach the volcano in plenty of time.

How to start or where to end in describing the greatest volcano on earth is a task for Dante. It is an enormous boiling cauldron which might keep busy a thousand invisible devils. But here are some facts:

The area in active operation, since 1823, varies at different times. The action is never the same two days in succession. Some years ago the crater was nineteen hundred feet deep. The day I visited the scene the lava came up to within fifty feet of the top of the crater and produced an effect of terrific grandeur which extended over many acres.

In the center of this "mouth of hell" are islands formed by lava shooting up, the red-hot streams mounting to considerable heights. These islands rise and fall and lean at different angles, which indicate that they are afloat on molten lava. The main stream of lava moves at a rate of two to four miles an hour, out of which a gusher will shoot forth, now and then, throwing up snakelike tongues of red and white molten lava, and spreading over the sullen gray crust. Again, the gray crust will crack across in a diabolic grin, or rainbow arches of red fire will suddenly appear, and these move slowly down to the boiling chasm where they vanish with a noise resembling artillery.

As we looked, to the right arose, at some distance, three pyramids of dazzling beauty discharging sparks like meteors, that reminded one of the beautiful fountains of Versailles, France, at night. But, as I said before, the effects are continually changing. Besides illuminated fountains, the masses of moving lava will resemble a flowing river, some of the tide rising six inches higher than other molten currents. I heard one person claim that it looked like the breaking up of

ice in a big river, only the substance was red-hot lava instead of ice and water.

With the coming of dusk the scene became more weird and thrilling, the contrasts more dramatic. It suggested Walpurgis Night. A Portuguese chauffeur threw a bottle of gasoline on the heaving gray mass which immediately threw up a huge black volume of smoke followed by spurting geysers of fire, these attaining a height of about thirty feet. Snakes of flame darted hither and thither, the whole display eclipsing any pyrotechnic spectacle I ever witnessed.

At times, sparks of red lava would scatter over the walls of the crater, giving the illusion of fallen stars. A steel man from Detroit, Mr. Preston Henry, said that one phenomenon of the crater suggested a thousand open-hearth furnaces by night. A Californian present remarked that any one visiting the island, and having the time, was guilty of a criminal offense if he neglected to visit the Kilauea volcano.

Some time later I met a lady from Mauni, at sea, and she had visited Kilauea two weeks after I was there. She said that the red-hot lava had then risen to the brink of the crater and a stream forty feet wide was flowing over it. A thick crust had formed, enabling her to walk across this lava stream which was still flowing underneath.

I believe that years ago a thick steel hawser was suspended across a narrow place in the crater, but the heat and fumes had melted it.

Now, I have roasted eggs in the lava of Vesuvius, and visited many volcanoes in New Zealand, the South Sea Islands and Japan, but on the whole I consider Kilauea far more interesting than any of them.

The trip back to Hilo lay along fields of sugar-cane, through which flumes had been constructed. Our Mr. Halstead explained that they were not for irrigation purposes, but that the sugar-cane was floated down them to the mills. Also, after the day's work is done, the laborer will often weave for himself a raftlike seat out of the sugar-cane husks, place him-

self thereon and float along in the flume to the region of his home. Some of these flumes are twenty miles long.

On our return to Honolulu from Hilo, we steamed all day along the shores of the island of Hawaii. The passing view was altogether one of beauty, with numerous waterfalls leaping down the rocky shore, and as far as the eye could see vast sugar fields spread to the right and the left. At daylight on Saturday we reached Honolulu, having experienced placid seas and wonderful weather.

An interesting anecdote was told me that gives a fair sample of Hawaiian superstition. The waters of the northern Pacific contain a red edible fish called *Alalau* which rarely comes close inshore. When, however, the fish does make an appearance, usually in large numbers, the natives claim that it is a sure sign some member of the royal family is going to die. To illustrate: In 1891 the Hawaiian king, Kalakaua, was taken ill in San Francisco, and died on January 30th. Of course, at this time there was no cable or wireless communication to send the sad news. But one morning it was noticed that the *Alalau* was approaching Hawaii in shoals of millions. Noting this, the natives concluded that inasmuch as none of the royal family on the island was ill, Kalakaua was dead, and they promptly entered upon a season of mourning. Some of the less superstitious natives, however, flouted the omen and decorated the city in preparation for a welcome to their monarch when he would return. Strange to say, on that very date the United States man-o'-war *The Charleston* was seen from an outlook on Diamond Head, coming toward the island, with a flag at half mast and the yards crossed and draped in black. She bore the remains of the dead Kalakaua. Immediately the festive arches put up in the city were covered with crape, and by the time that the man-o'-war had docked the city was in a complete state of public mourning.

MAUNA LOA

To the east of Kilauea, in 1880, a terrible volcanic outbreak occurred at Mauna Loa, 13,000 feet above sea-level. In connection with the phenomenon two features are very arresting and call for deep thought.

Following the eruption, huge streams of lava flowed down the mountain-sides, cooling as it came into contact with the air and forming a crust several inches thick, under which the molten lava continued to flow. Now, such a crust will bear the weight of many hundreds of pounds. Moreover, upon entering a cavity or gulch, it will maintain its original thickness and still continue to flow up the other side—in other words uphill, without spreading in the bed of the gulch except to cover the space of the lava tube or “frozen” casing. In instances where the pressure from within proves too great, the lava will often break away from the main stream at the weakest spot. Again, the air quickly cooling the lava at this breaking point will strengthen the casing and the lava again flows on its straight course.

The city of Hilo, though on the ocean beach, and far away enough from the volcano, still was in the direct way of the lava flow. Great consternation spread everywhere. Hawaiians, as all of us know, are very superstitious and appealed to their Princess Ruth, the last of the Kamehameha dynasty, to use her influence with the gods to stop Mauna Loa's evil. They believed that she had the power to stop the lava avalanche. Princess Ruth was a lady who weighed somewhere in the neighborhood of four hundred pounds, and her residence was in Honolulu. Heeding her people's outcry, without delay she summoned her retinue of servants and proceeded to Hilo, taking with her a white pig. Widespread and intense interest was aroused in Honolulu by this unique expedition, and an excursion steamer, carrying a capacity crowd and a brass band, left the chief city for the scene of incantation.

Lo, the strange and awe-inspiring sequel! Princess Ruth



**ISLAND OF YAP, CAROLINES, WHERE GERMANY HAD
A 30-KILOWAT WIRELESS.**



**GRAVE OF FATHER DAMIEN—MARTYRED PRIEST
HAWAIIAN ISLANDS**

went to a spot one mile north of Hilo and proclaimed that the lava would cease flowing at that particular point. It did, after having flowed continuously for nine months. The homes of her people were thus saved. But what significance the pig had in halting the stream of molten lava is known only to the Hawaiians.

While in Honolulu I had the pleasure of meeting Mrs. Emma Nakiuna, one of the most intelligent and well-educated Hawaiian ladies of the present day, and while conversing with her I referred to this Mauna Loa miracle. She replied that the Hawaiian race possesses certain mystic powers which have been handed down by their departed chiefs. Call it superstition, if you like, Mrs. Nakiuna said, but she added that the white people at the time of the lava overflow were mighty glad to enlist this "power" in their behalf when they wanted their homes saved from destruction.

LEPER SETTLEMENT OF MOLOKAI

By A. P. Taylor

LIFE in the settlement of that little portion of Molokai which is devoted to the segregation of lepers is not so sordid and frightful as the world may have been led to believe, for much of the popular idea concerning unfortunates of this class was derived from the pages of "Ben Hur" and the affliction of lepers at Christ's time.

On the 4th of July, and on the 11th of June, when the birthday of Kamehameha the Great, the Hawaiian conqueror, is observed, and on other holidays, everybody turns out to witness the horse-racing events. On these and other holidays the inmates have athletic displays. Their strong men build "human pyramids," and there are foot-races and other forms of holiday pleasures.

The settlement brass band is one of the features of life there, while glee clubs and other amusement societies are all composed of enthusiastic people. About twice a week in the evening everybody goes to the moving-picture theater. Reels are supplied regularly from Honolulu, and in this way the inmates learn much of the outside world.

The only time when the inmates are really ill is when they have a bad cold, or the mumps, or something like that. The government of the Territory of Hawaii provides a superintendent and physician and other administrative officers for the Settlement, and general food supplies are obtained through them. Many of the inmates, however, have their little "kulae-anas" of land belonging to themselves, where they raise taro, from which poi, the national dish, is made.

Kalaupapa is the little administrative town of the Settlement where steamers make landings. Six or seven miles be-

yond, across a neck of land, but upon the sea-shore, is the little town of Kalawao, where many activities for the benefit of the inmates are carried on, such as the Baldwin Home for boys, where Brother Joseph Dutton, one of the unique figures of the Pacific, makes his headquarters, to administer to the inmates.

Brother Dutton went to the Settlement from the mainland about thirty-four years ago. He went to Kalawao, and only once in this long third of a century has he left Kalawao, and visited Kalaupapa. He has never had the desire to leave this out-of-the-way but beautiful spot. He has enormous correspondence with people abroad, and does all his writing with pen and ink, refusing to utilize the modern typewriting machine. He says he has never seen a "movie" and hopes he never will. He hoped the same thing with regard to the automobile, but Dr. Goodhue, the Settlement physician, determined that Brother Dutton ought to see something modern, and drove his car directly into the Baldwin Home compound. Before Brother Dutton knew it, his eyes had beheld the modern juggernaut.

The inmates have their little dabble in politics about every two years. With good motion pictures and libraries, music and entertainments, horse-racing, baseball leagues, and other forms of amusements, the inmates of Kalawao and Kalaupapa have a reasonably good time.

The island of Molokai is not, as so many believe, entirely devoted to a colony of lepers. Only an infinitesimal part of the island, and that a shelving coast behind which precipices rise, forms the famous settlement, where government officials and citizens generally of the islands do everything to make life pleasing for these people set apart from the rest of the world. They have even had the thrill which comes to every one when an aeroplane flies overhead. The United States Army authorities of Honolulu, early in 1918, sent Major H. M. Clark, a pilot aviator, with his aeroplane to do "stunts" over the Settlement. This was the first time the majority of the in-

mates had ever seen an air machine. Much prominence has been given to leprosy in Hawaii, but I found it also prevails extensively in China, Japan and the Philippines.

The martyr priest, Father Joseph Damien, was a Belgian who volunteered, while stationed at Honolulu, to devote his life to the needs of the Leper Settlement of Molokai. He went there in 1873 and remained until his death from leprosy, in his fiftieth year, in 1889.

During his residence among these afflicted people, he was most self-sacrificing, and contributed much toward their pleasure, peace and contentment. Speaking of Father Damien, Robert Louis Stevenson wrote in 1890 at Sydney:

"It was his part, by one striking act of martyrdom, to direct all men's eyes to that distressful country. If ever any man brought reforms and died to bring them, it was he." Elsewhere in the memoir Stevenson refers to him as "this plain, noble human brother and father of ours," the word "plain" being a reference to Father Damien's peasant origin; and he spoke of the priest as one who, "crowned with glories and terrors, toiled and suffered a lingering death under the cliffs of Kalawao." This last quotation expressed Stevenson's horror of leprosy, as he had seen it on Molokai, and the condition of the Leper Colony when Father Damien began his labors there.

BIRD LIFE OF HAWAII

THE plantations in the Hawaiian Islands suffered from many pests, chiefly rats. Mynah birds were introduced from India into Hawaii and Tahiti. They became a great nuisance, and means were taken to drive them out of Hawaii. These were largely successful. In Tahiti they overran the island, where they will attack and rob pigeon nests. In time, the mongoose, which had been introduced to kill rats in Hawaii, became a menace, and now a parasitic insect has been introduced to destroy the mongoose.

Pheasants were introduced into Honolulu by Mr. S. M. Damon, but they increased very slowly owing to the ravages of the mongoose. Noting this, Mr. Damon imported some expert gamekeepers from Scotland who had done excellent service in exterminating the mongoose. The result was that two thousand of these animals were destroyed in one month in Moanalau Park, near Honolulu.

Bird life in the Hawaiian Islands is not plentiful to-day owing to the encroachments of man and the progress of civilization. On Hawaii, in the forests immediately surrounding the active Kilauea volcano, are found descendants of the birds of ancient times, from which were plucked the feathers used to fashion the wonderfully gorgeous cloaks worn by the native kings and chiefs. These are practically all that remains of the original bird life in the islands. The Mynah bird and English sparrow are the most numerous of the winged inhabitants. There are also a number of doves left.

There never have been any poisonous snakes in the islands, the governments having been always particularly rigid in preventing the introduction of reptiles. One may roam in the

forests of the mountains, among grasses and underbrush, without fear of coming in contact with snakes. And while I think of it, so far as I can discover, there are no poisonous land-snakes to be found on any Pacific Islands with the exception of New Guinea (Papua).

OTHER ISLANDS

EASTER ISLAND—THE CAROLINES—NORFOLK, PITCAIRN, LORD HOWE, AND FANNING ISLANDS

OF the numerous small islands detached from the main groups that lie scattered throughout the Pacific, I shall be able to refer to only a few that possess features of unusual interest, although I have material enough about them to make a book. Some day I may write a book entirely devoted to these small islands, especially now as Japan seems anxious to acquire some of them since the advent of Peace.

The most tantalizing archeological puzzle of the Pacific is Easter Island, with its strange images of stone, ancient dwellings and antediluvian caves. Dropped at haphazard in the sea, a thousand miles from anywhere, and owing a passive allegiance to the Chilean Government, Easter Island is one of the wonders of the world, and holds a secret that no man has yet read. Many earnest and learned seekers have visited the place and seen the monuments of a riddle past that it boldly flaunts as if to challenge their shrewdest investigation, and have come away little wiser than when they arrived, leaving the island as inscrutable as ever.

Along the coast of the island great terraces of solid masonry have been built of square stones by the primitive inhabitants. This was no small task, for the stones used are large and cumbersome, many of them six feet long, and they had to be conveyed long distances from the quarries. Upon these terraces stood the gray stone figures that have made Easter Island so famous and so mysterious. These figures all looked out to sea, sneering coldly at the unbroken horizon. The past tense is justified

in speaking of these terrace figures because many of them have fallen or have been thrown down.

In feature these images are all exactly alike; the type of face is certainly intellectual rather than stupid, but the most noticeable characteristic is the look of supercilious scorn with which each gazes ahead. The lips are thin and protuberant, and a perpetual sneer is forever fixed upon these stony faces.

It is stated that there are five hundred and fifty-five of these images complete or in various stages of demolition. They are of various sizes, some of them being small, perhaps only four feet high, while the largest is almost eighty feet. But the average height is about seventeen feet.

While most people have heard of these stone images, they are not the only relics left on the island of a lost people and an unwritten history. Many other structures exist which in some degree resemble cave dwellings. These are solidly built of masonry and are long, narrow, and not very high. One of them measures, roughly, one hundred feet long, with an interior chamber about six feet wide and three feet high. Originally, these chambers were lined with decorated timber slabs.

It is idle for a layman like myself to speculate upon the origin of the figures on this island. The remains of a forgotten people are not altogether unique in the Pacific, for in the Caroline Islands, in Tonga and elsewhere, are strange monuments just as inexplicable, though very different in form. There are great tombs in Tonga, for example, that give evidence of a power of mechanical contrivance quite beyond the present generation of Tongans.

Ethnologists have given some attention to the Easter Island puzzle, but so far it seems that there is little prospect that the supercilious gray faces will ever open their sealed and pursed lips to tell their past, or that documents hidden in the heavy masonry will ever unfold their pages to inquiring modern eyes.

Another "enchanted region of archeology," as it has been

called, is the Caroline Islands. In this group are massive ruins also, one of a strange water-town, an ancient island Venice, whose origin is as mysterious as that of the stone figures on Easter Island.

Tourists seldom penetrate into the jungle-covered fastnesses of the Carolines, and steamers give them a wide berth, as a rule, owing to the dangerous reefs surrounding them. Hundreds of acres—in the case of what are known as Nan Matal ruins, as much as eleven square miles—are covered by the remains of walls, canals, and earthworks of the most stupendous character, built upon a general plan such as could have been only conceived by men of power and intelligence, acquainted with mechanical appliances for raising enormous weights and transporting huge blocks of stone considerable distances by both land and water. These works, which strike even civilized men with astonishment, could have been only carried out by the labor of thousands of men working in concert and under command; and they proved that their builders must have had at the time of their erection some form of settled government and system of religion. By whom and for what purpose they were built, are questions to which no answer has yet been given. Years ago, American commissions visited these Caroline ruins, as well as those on Easter Island, and made a thorough investigation of the relics, but they were not able, so far as I can learn, to arrive at any definite conclusion.

On the eastern end of the Taumoto Archipelago and south-east of Tahiti, is situated Pitcairn Island, with which is associated stirring events, as it was the home of the mutineers of the *Bounty*. The *Bounty* was under the command of Captain Bligh, who afterward became Governor of Nova Scotia. The iron will arbitrarily exercised by Bligh was the cause of the mutiny, the leader of which was Chief-officer Christian, who placed Bligh and eighteen of the crew in a small boat and set them adrift. After drifting about for forty-two days they landed at Coepang (Timor), three thousand six hundred miles away. Christian, together with other members of the mutinous

crew, settled on Pitcairn Island, and married native girls who were brought from Tahiti. By 1856 the Pitcairn Islanders had increased in population to such an extent that some of them were transferred to Norfolk Island.

The Pitcairners, who now number about one hundred and fifty, are all Seventh Day Adventists. They have a church and a school, and the schoolmaster is preacher as well as medical adviser. The day's work is begun and ended with a religious ceremony. The inhabitants seem to be a happy people, with no desire to be disturbed or influenced by the outside world.

Pitcairn Island is about two and a half miles long and one mile wide. In the center of it rises a hill a thousand feet high. The island comes under the administration of the High Commissioner of the Western Pacific.

NORFOLK ISLAND

Norfolk Island, to which the other descendants of the *Bounty* migrated, is one of the most lovely island jewels set in the Pacific. It is about a thousand miles from Sydney, and four hundred miles northwest of New Zealand. This island was discovered by Captain Cook in 1774. It was used as a penal settlement, and the terrific punishments inflicted by men as brutal as the convicts themselves constitute the blackest page in the history of the old Colonial days. The moral sense of the British public was outraged by the disclosures that were made of the depravity and cruelty that went on in Norfolk Island under the convict régime, and in 1856 the prisoners were removed, and in their place a number of the Pitcairn families settled. With the introduction of these peaceful folk the scene of so much convict vice and misery underwent what might be called a spiritual transformation.

The Norfolk Islanders gain an easy livelihood by growing fruits, etc., for export, and by whale fishery. The island is the headquarters of the Melanesian (Anglican) Mission, and is also in communication with the outside world by means of the Pacific cable.

LORD HOWE ISLAND

Another gem of the Pacific is Lord Howe Island, lying nearly midway between the Australian coast and Norfolk Island. Robert Louis Stevenson described his first view of this island as the most beautiful picture he had ever seen. In addition to its picturesqueness, the island possesses an equable climate, and the luxurious wealth of its vegetation and the varied charms of its natural beauties have warranted its description as "a small terrestrial paradise, which nature delights to beautify." It is noted as the home of the *Kentia* palms, which are indigenous to this one spot alone of the earth's surface. The *Kentia* palms are acknowledged as the hardiest, the most beautiful and most useful of all palms, and for decorative purposes cannot be excelled. Quite an export trade in the seed of this palm is carried on with Europe and America.

The island is seven miles long and contains an area of 3,220 acres. The annual crop is about 5,000 bushels, grown on 300 acres, the sale of which is under the control of the New South Wales Government, and generally realizes from £10,000 to £12,000 annually.

There must be something peculiar about the soil of this island, as it also grows onions of a freakish nature, as is evidenced by a case of onions being washed ashore from a wreck, and which when planted in April, produces a small, nice flavored pickling onion, while those planted in June produces large white cooking onions.

Malden Island, in the possession of the Melbourne firm of Grice, Summer & Co., is peopled by about a hundred Kanakas, who work the phosphate deposits. It is an arid little spot and has no lures whatever as a tourist resort.

Fanning and Christmas Islands could easily take up several pages, especially concerning the cable and wireless stations at Fanning Island. Four degrees north of the equator lies Fanning. I have passed it at different times, but the first time

I stopped there was in 1904, to the best of my recollection. We did not go ashore, but lay outside, and while at anchor I never saw so many sharks as were swimming around the stern of the ship.

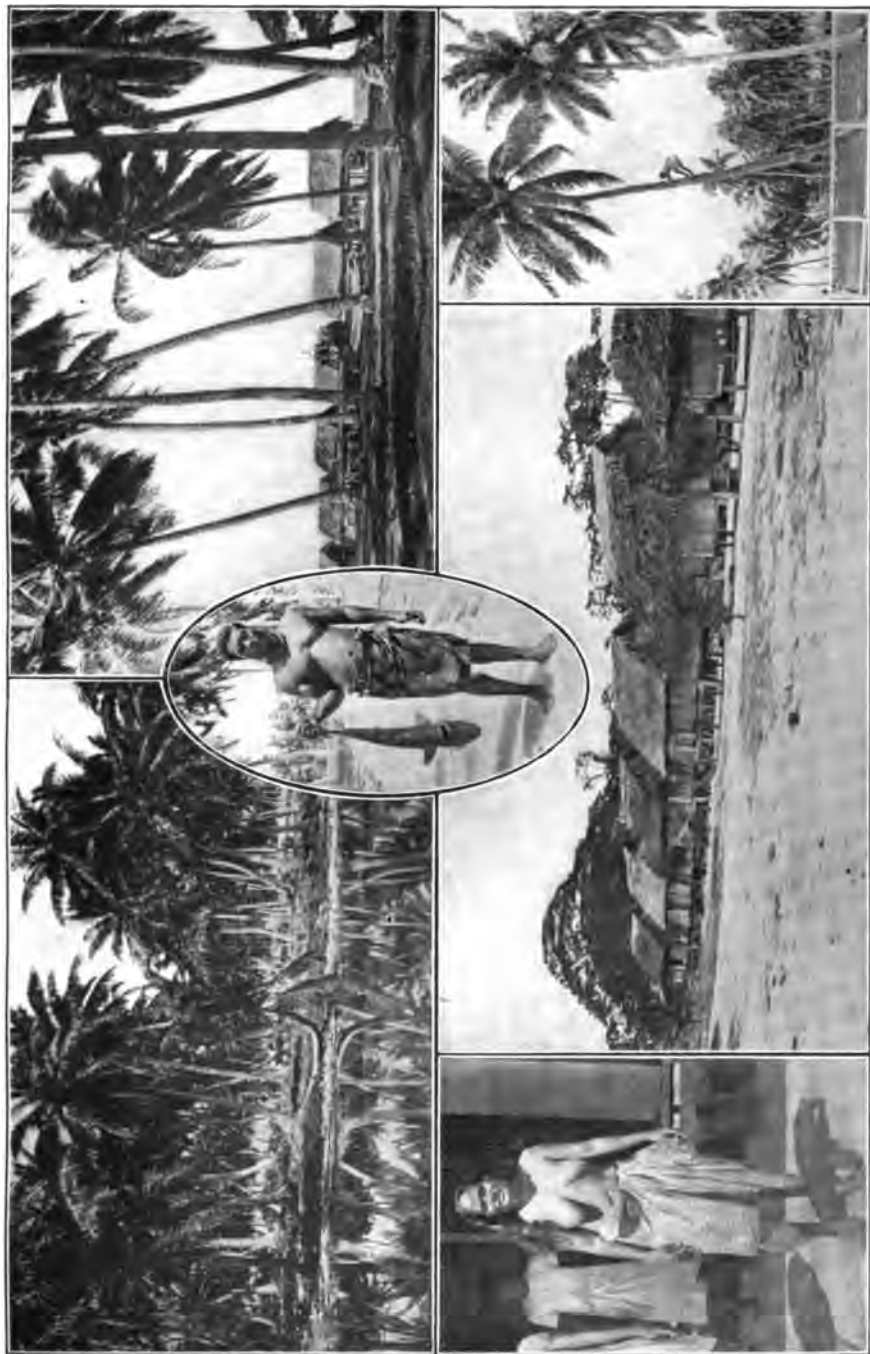
Communication with Fanning Island has been most unsatisfactory for the residents. Sometimes, the Oceanic Company's steamers would stop there going one way; then it was discontinued because the service did not pay. Later on, the Union Company's, of New Zealand, steamers stopped there occasionally, but they were discontinued also. The Pacific Cable Board built an auxiliary schooner, *The Strathcona*, in Auckland, in 1917, to run between Fanning Island and Honolulu. But on its maiden trip to Fanning Island the vessel was wrecked at a total loss.

The Fanning cable station was destroyed and the cable cut by the German cruiser *Nurnberg* in September, 1914. In a short time, however, repairs were completed by the cable company's staff, and communication was restored.

A Scotchman by the name of Greg once owned Fanning and Washington Islands, the latter sixty-five miles to the northwest. Greg married a native princess, a sister of the King of Rakahanhaga, near Manihiki, by whom he had eight children, all of whom he had educated at good schools.

Practically, the only product of these islands is the coconut. There is an immense lagoon there infested with sharks; so much so, that an area of the water has to be enclosed with barbed wire to enable the few residents to have salt water baths.

In 1907, Fanning and Washington Islands came into the possession of a missionary—Father Rougier—who had loaned money on them. It was there that the Church and the Law met in conflict, with the Church triumphant. A well-known solicitor in Fiji, since deceased, thought he was getting a half interest in the property, but as he had put in no money the missionary would not entertain his claim. The islands were



SCENES ON FANNING ISLAND, PACIFIC OCEAN, NEAR EQUATOR

sold under foreclosure at Suva, Fiji, on November 30, 1907, for the sum of 25,000 pounds.

The missionary, Father Rougier, subsequently sold Fanning and Washington Islands for 70,000 pounds. A British protectorate had been established over the islands, and the High Commissioner of the Western Pacific made an order prohibiting the sale to any one other than a British subject, and I believe it is now owned by a British syndicate.

The white population of Fanning Island consists of some twenty persons, mostly employed at the cable station, and about two hundred natives recruited from the Gilbert Islands for the cocoanut plantations.

In the vicinity of Fanning are the Washington, Christmas and Palmyra Islands, annexed by the British about 1889, although the latter was discovered by Captain Sawle of the American ship, *Palmyra*, in 1802. Lagoons, teeming with fish, turtles and lobsters, abound in the place; and in fact Judge Cooper, of Honolulu, who now owns Palmyra Island, contemplates establishing a fish canning factory there.

WRECK OF THE *Aeon*

Christmas Island, discovered by Captain Cook on Christmas Day, 1777, upon which some cocoanut trees are growing, was the scene of the wreck, in 1908, of the British freight steamer *Aeon* (5,000 tons), which, with cargo, was insured for \$400,000; a craft that was purchased from Lloyd's, in London, by Mr. Duffy and myself.

The *Aeon* was bound from San Francisco to Australia, and was carried by a strong current into an indentation on the east side of the island, known as Dangerous Bight, where she stranded. Among the passengers were the wife of Lieutenant Riddell, U. S. N., and three children; Chaplain Kilpatrick, his wife, and a nurse, who were bound for Pago Pago, the American naval station. While on the island where they were wrecked Mrs. Kilpatrick gave birth to a child and it was called "Christmas."

Mr. Duffy and I sold half an interest in the *Aeon* to a New Zealand syndicate. To save the cargo and to see what prospects there were for saving the vessel, an auxiliary schooner, *The Zingara*, owned by Captain Ross and commanded by Captain Robinson, with a crew of eleven white men and twenty pearl divers, picked up at Nuie in the Navigator group, was dispatched to the island.

Knowing the weakness of the Pacific Islanders for exploiting wrecks, I wrote notifications and cabled warnings to Noumea, Suva, Apia and Tahiti to the effect that the wreck was our property. Also, to offset the enterprising spirit to be found in the Hawaiian Islanders I cabled James McInerney, of Honolulu, to insert a warning in the press against tampering with the *Aeon* or its cargo. But press warnings have no terrors for Hawaiians, for the *Concord*, under the command of Captain Eben Low (whom the Honolulu *Advertiser* described as a cow-puncher and gentlemanly pirate), was fitted out at once, and left for the wreck of our ship with full freebooter intentions.

Learning of the departure of Captain Low's ship I sent the following additional cable from Sydney:

"Halstead and McInerney, Honolulu. Our lawyer advises to apply for protection of American navy against piracy, on account of being a citizen of the United States. Insert local and San Francisco newspapers."

I have never discovered how the *Concord* got her clearance from Honolulu, but she hove-to off Fanning Island and Captain Low went ashore and kidnaped Willie Greg, and compelled this resourceful youth to pilot the pirate crew to the scene of the wreck. Prior to his kidnaping the astute Willie, aiming to secure two strings to his bow, cabled me from Fanning at Sydney:

"Are you prepared buy valuable recent news of *Aeon* (signed) Greg."

On visiting Honolulu later, Captain Low informed me



CAPTAIN EBEN LOW.

MATE WILLIE GREG.

Bound for Steamer "AEON," CHRISTMAS ISLAND.

that he found a more desperate crew of pirates than his own had preceded him to the wreck, looting the cargo and dynamiting the ship as they pleased; so Captain Low, after securing a few tins of California prunes, some china and glassware that remained, proceeded to Fanning Island, liberated Greg, loaded his ship with cocoanuts and returned to Honolulu.

I found Captain Low a most hospitable pirate. He entertained my son Leo and me at an Hawaiian feast (luau), where we met his charming wife and family, together with several friends. The dinner was something to remember, consisting, as it did, of one- and two-finger poi and many native fruits and fishes, served for the most part raw and wrapped in leaves. As we went through the bill-of-fare my son Leo's face was a study. The course that attracted his attention by its unusual ingredients was that of little shrimps running about on the table. If one was quick and dexterous enough, he could catch one and eat it alive!

The crew and passengers of the *Aeon* remained on Christmas Island for several weeks, then Captain Downey salvaged a gasoline engine, installed it in a life-boat, and in this he proceeded to Fanning Island, one hundred and forty-five miles northwest. There he cabled his agents, Howard Smith & Co., Sydney. In due time the Union Company's steamer *Manuka* stopped at Christmas Island, sent boats ashore and rescued the passengers, crew and mail. Christmas Island was sold in 1917 by the Lever Brothers to Father Rougier for \$50,000; the missionary by this purchase acquired extensive cocoanut groves in full bearing.

Ocean Island, on the equator, is about six miles in circumference, and one of the richest spots for its size on the globe. Its wealth consists of vast deposits of phosphates operated by an English company. A few years ago this company exported one hundred thousand tons of phosphates yearly, worth, when loaded, \$12.50 a ton. As there is no harbor, ships in rough weather have to lay to until the sea moderates enough to permit surf boats, carrying two tons, to come alongside.

Sir Arthur Gordon, afterward Lord Stanmore, a former governor of Fiji and High Commissioner of the Western Pacific, having jurisdiction over the Gilbert and Ellice Islands, granted concessions to this company and subsequently became their chairman.

The island of Nauru, not far distant, on the equator, is claimed to possess larger deposits of phosphates than Ocean Island, estimated at 40,000,000 tons and valued at 100,000,000 pounds. It was controlled by the Germans until the war broke out. A British man-o'-war, sent out to capture Nauru, found a modern fortress fully equipped erected on the island.

To the west of Nauru is Angaur Island, also containing rich phosphate deposits, which the Japanese have been working for a period of several years.

Various origins are assigned to the presence of phosphates in the Pacific islands, but it is generally accepted that bird droppings, which form the guano, are, by action of rain, sun and wind, accountable for the phosphates which are found deposited between pinnacles of coral rock. Alarm is being felt for future supplies of guano, as the birds are being slaughtered for their plumage, which was shipped to France and used by milliners. Whatever race is responsible for the depredations, much indignation has been aroused by the barbarous practice. These cruel poachers are accused of driving the birds, which are very tame and fat, into caves and starving them until they are emaciated, when the feathers are easily removed. In order to check this vandalism and protect the birds, the United States sent a man-o'-war, the *Thetis*, in 1909, to Laysan, Lisianski and Midway Island on a cruise to warn invaders. On arrival the naval authorities arrested twenty-four Japanese poachers and took them to Honolulu for trial. At that time it was estimated that three hundred thousand birds were destroyed annually.

New settlers, who have introduced domestic animals to the Pacific islands, have strange experiences. As we have noted before, birds have been introduced to destroy insect pests, and in time have become pests themselves, calling for destruction.

One settler at Rapa imported a setting of eggs from California, and having no hens he put them in an incubator to hatch, and in due time a brood of chickens came out ; but singular to relate, they did not display the inherent habit of the hen tribe of scratching for food, so they had to be fed by hand. Later on, a neighboring islander brought over some hens from which these imported incubator chicks acquired the habit of scratching for their daily food.

It is generally supposed that the pigs that abound on most of the islands were introduced by Captain Cook, but those who have read the accounts of the great navigator's voyaging will not fall into this popular error. Over and over again Cook speaks of bartering pieces of iron and other articles for supplies of hogs, fruit and vegetables from the islanders. Thus it is substantiated that there were plenty of pigs in the Pacific islands in the days of Captain Cook.

(the Rev. Father Gartlan, S. J.) of the Riverview College, I was informed that when their father, a French planter, brought them as small boys from the New Hebrides, three hundred and twenty-five miles from Noumea—their birthplace and a day's steam from there—to the college, his injunction was to make them good men, as he wished his sons, Alsace and Lorraine, to grow up and become soldiers of France, and help recapture the provinces for which they were named.

The white population of New Caledonia is about 20,000; black or native, 40,000; Chinese and Javanese, 5,000, and Japanese, 6,000. The three latter races are engaged largely in the nickel mines. Instead of returning to Japan at the end of their contract, the Japanese workers settle in the island and engage in trading occupation.

NEW HEBRIDES

ONE of the most interesting groups in the wide expanse of the Pacific Ocean is that of the New Hebrides, lying in the hurricane zone.

They are at present jointly administered by resident commissioners appointed by Britain and France, under what is known as a "Condominium," but the day is not far distant in my opinion—perhaps even before this is in print—when they will be wholly French. Between 166 degrees and 171 degrees east longitude and 14 degrees south latitude, the whole 400 miles over which these 12 large and 100 smaller islands, extend, lies within the tropics, but owing to an ocean environment the temperature rarely exceeds 95 degrees nor falls below 55 degrees Fahrenheit.

Scattered throughout the group are several commodious harbors of commercial and strategic value which in future years will come into prominence.

Vila Harbor is a very beautiful one—very blue and sparkling and tropical; exquisitely set in peaky hills and gemmed with fairy islands. Havannah Harbor, some miles to the south of Vila, is large and very deep. There are excellent harbors in some of the other islands of the group, notably Port Sandwich and Port Stanley in Malekula. Vila is the commercial center of the group and is the site of the British and French Residencies, the former being romantically situated on a small island in the center of the harbor and the latter on the mainland. Vila is a scattered little town, dozing in a nest of lemon flowered hibiscus and waving cocoanut palms. One cannot walk a step without realizing how thoroughly French the settlement has become—which but a few years ago was full of English people. When I first knew the

islands there was not a Frenchman in the group; in a few more years from the way things are going now, there may not be an Englishman; as to-day the French outnumber the British by over two to one, the number being 700 French and under 300 English, while the native population is estimated at 60,000. The French language is now almost the only one heard in Vila. The Post Office, public buildings, and a few stores comprise the only street. There is no pier, and cargo from the steamer is carried by native labor in small boats to the beach. The Catholic Cathedral with its belfry, the Presbyterian Church, and a wireless station with its two great pillars, 165 feet in height, are conspicuous features of the landscape. For years there has been more friction among the various missionary societies here than any group in the Pacific.

The first impression of the traveler at the port is the number of natives working at the stores, plantations, private and official residencies. The native police and official messengers add to their number, which seem to be drawn from different islands of the group, so much do they vary in appearance.

Captain Wetheral, who has been navigating among these islands for many years, describes the native as a splendid worker, but will sulk if one starts to bully him. They have plenty of money, owing to the keen competition between British and French traders for copra and other products.

In 1774 Captain Cook visited the group and gave it its present name. He thoroughly explored and charted every island, and to this day his labors are appreciated by seamen in these waters. He was followed by many voyagers. After their visits there was a sad period from which few islands in the Pacific escaped, in which the scum of the white race carried on a blood-stained traffic in whaling products and sandalwood. The horrors of the labor traffic for the Queensland sugar plantations were added, so that in a few decades the native race was so weakened that in many places its

preservation seemed hopeless. For a considerable time the New Hebrides were the principal recruiting ground for labor traffic, the natives being taken away in large numbers and often by force and fraud. The only accomplishment they brought back was the facility of swearing in English. They not only invariably relapsed into their old ways but became more degraded, if that were possible; for the plantations turned out some of the most accomplished specimens of savage scoundrels imaginable—men who had grafted on to their originally depraved natures the vices of civilization, but none of its virtues.

One of the greatest evils in these islands was the sale of liquor to the natives, but is not nearly so bad as it used to be, but still goes on here and there, though strictly forbidden by law. The traffic was carried on by Frenchmen from New Caledonia, who sold the vilest kind of "fire water." Every effort has been made by the authorities to suppress the wretched trade, but it is difficult to do this. There are many places where ten years ago thriving villages stood, and to-day in the same places there are only a few solitary posts, a few battered remnants of thatch, silent and uncanny, pitiful testimony of the dying race, and of the devastating effects of the traffic of which I have spoken.

Among other causes of the disappearance of the native population is tuberculosis, brought on through wearing thin, ragged clothes and seldom changing them, or the other extreme, too warm clothing. In the least civilized sections of the islands where native life is at its natural state, the population is maintained. The majority of planters urge the wearing of only a lava-lava while at work.

According to law, no arms or munitions are permitted to be supplied to the natives, although supplies reach there from Noumea. The result is that a visit of British and French men-o'-war is frequently found necessary. In no time, the natives all over the island know of the approach of these vessels, no doubt by some sort of bush telegraphy.

The undergrowth is so thick and the grass tall enough to hide them, thus enabling them to defy and laugh at constitutional authority.

Many years ago the New Hebrides was a rich field for blackbirding and at present for recruiting natives for other islands. In November, 1918, seventeen labor recruiting vessels were wrecked near these islands and many lives lost.

With deep waters along their shores, some good streams, convenient harbors and soil of wonderful richness and fertility, the New Hebrides form a valuable group.

Copra is the staple commodity and many thousands of tons of it find their way to the Sydney market. Recently, however, the cocoanut trees were attacked by a pernicious black beetle that did much damage. Coffee grows abundantly and cocoa and vanilla plantations promise to yield handsomely in the near future. There are some excellent cotton plantations.

The yam is the island stand-by food, both for the native and white man, and grows in many shapes and sizes. Some species are difficult to tell when cooked, from good potatoes, and what is more, the crop rarely if ever fails, owing to the regular and abundant rainfall throughout the islands.

Some idea of the richness of the soil can be imagined when I mention that Mr. Martin keeps 5,000 sheep on two thousand acres of land on Erromanga, where the rainfall is not so heavy as in the northern parts of the group, where as much as 10 inches has fallen in one day. Mr. Martin keeps the stock up by importing about a dozen merino rams annually, thereby producing a large quantity of wool. As for fruit, on the island of Aneityeum, orange trees, from 50 to 70 feet high, loaded down with thin-skinned oranges with few seeds, abound in quantities and require both a man's hands to span. Besides oranges, the islands are rich in granadillas, custard apples, breadfruit, bananas and pineapples; some of the latter attaining a weight of 20 pounds. In fact, all tropical fruits grow in great variety and perfection.

The New Hebrides are truly a paradise for planters, and only await a different form of government to make them a desirable place to settle in.

The largest island, Santo, is some 64 miles long and 32 miles in breadth. It is heavily wooded, has broad and fertile valleys and is watered by numberless streams. The next largest island is Malekula, which is likewise very fertile territory. The interior of the island is not very well-known yet, and the inland tribes are very truculent. Intertribal fighting is always going on. Most of the settlement is on Efate or Sandwich Island, almost the center of the group. There are three active volcanoes—those of Ambrym, Lopevi and Tanna. The crater of the Tanna volcano is not more than 600 feet above the level of the sea. It is one of the finest in the Pacific, is always active and is one of the sights of these islands. The late Dr. Steel, of Sydney, once described it as the “great lighthouse of the Southern Isles, which every three or four minutes bursts forth with great brilliancy, like a revolving light.” Each time it wears a different aspect. It is always grand, and inspiring and never can become an “Old Affair.”

Rubber has been experimented with in many of the plantations, but with poor results, and as a business proposition is being abandoned.

Many of the settlers have a good selection of cattle, which, together with goats and wild pigs, thrive wonderfully in these islands.

THE BRITISH SOLOMON ISLANDS

IT is attributed to Robert Louis Stevenson, the famous traveler and novelist, that he said of the Solomon Islands, "they were dreams of fertility," and there is much truth in the statement. Perhaps less interesting and picturesque in many respects than other island groups in the Pacific, there is not the least doubt that these Solomons have a wonderful commercial future. In the last twenty years the development has been marvelous, in the first years there may not have been more than a few thousand acres taken up for the planting of cocoanuts. There are many thousands of acres being developed into well laid-out, well managed coconut plantations, some in the first stages, and others already come to fruitful and profitable stages. One firm, Lever Brothers of Sunlight Soap fame, exports from their plantations to their works in England and Australia at least 5,000 tons of copra a month. This firm has planned development in the Solomons, during the next ten years, on a scale that will by then need a fleet of ships to cope with the trade and export of copra. The Solomons are progressing with such rapidity that all the accessories of progress and all personal and domestic comforts will be common.

No other islands of the Pacific can offer more interesting historical items, as to their discovery, than the Solomons. Some of the most adventurous and famous of navigators, hundreds of years back, visited these islands, and it is recorded, and the statement believed to this day, that one of these intrepid sailors estimated the Solomons comprised in their whole group thousands of islands, and after one has sailed through the innumerable channels, into many bays and

straits, and, in short, round the group, it is difficult to disbelieve the number an exaggeration. Three hundred and forty-nine years ago the bold mariner, Mendaña, sailed through the Solomons, and the names he gave the various larger islands are still retained. This plucky sailorman on his return to Europe told of a wonderland, rich beyond the imagination of men, of strange black peoples, with strange customs, unfriendly and aggressive; a land, as he told the Spanish king of those days, that was a revelation of fertility, and which teemed with a superabundance of all precious metals. Mendaña had ambitions of returning and setting up a Spanish colony, himself as king, and the beautiful wife he so tenderly writes about in his memoirs, as queen. He never returned, and nothing more of any note was heard of the Solomons until fifty years ago British men-of-war voyaging in that part of the Pacific took stock of its possibilities, and from that time missionaries and traders, sure of some protection, gradually found opportunities for friendly intercourse with the natives, and then for enterprise and settlement. Great Britain had made no claim either to own or protect the islands, her statesmen, indeed, were indifferent to the spread of the Empire in the Pacific, when the Germans came on the scene, and there was a sudden shuffle, as it were, the British taking one lot of the islands and the Germans the other. In 1900, a second adjustment, and the present one, took place whereby all the islands south of the big island in the north, Bourgainville, became a British Protectorate, the rest the German Solomons, and under the German New Guinea administration.

The Solomons lie between the parallels of 5 degrees and 12 degrees, 30 minutes south, and the meridians of 155 degrees and 170 degrees of east longitude. They are well out of the regions of hurricanes, a factor of immense importance commercially, and which is the cause of much damage in other island groups of the South Pacific—Fiji, for instance. The total area of the British Protectorate will amount at a

moderate computation to about 10,000,000 acres, and every acre useful or suitable for some tropical product.

The pretty little settlement of Tulagi on the small island of Florida, sandwiched between the very large islands of Guadalcanal and Malaita, in the south end of the group, is the seat of government and the chief port of entry, there being a Resident Commissioner (Mr. Chas. Workman, M.A.) and officials for the conduct of government business of customs, land matters, native affairs, police, and the collection of revenues. The climate of the Solomons cannot be described as a healthy one, since malarial fever and dysentery are prevalent, the latter chiefly among the natives. Europeans, taking reasonable precautions, stand the climate very well; they in time become acclimatized, and with an occasional holiday to the mountains, where it is both cold and bracing, any white man can live a long, useful life. Numbers of white women are now living at Tulagi, Gizo, and other settlements, on Government and mission stations and plantations. This signifies that malaria, the dreaded ailment of the tropics, will gradually disappear as the comforts of homes under women's guidance are promoted, and the land is opened up and drained. The European population of the Solomons would be at present about 1,000, the native about 150,000, but this is much under the supposed real number there is no doubt, as owing to the still very savage tribes, such as on Malaita, a census has not been possible. The Administration estimate that the natives are decreasing, large numbers having been carried off by dysentery, but many more by incessant tribal warfare, which the Administration seems powerless to avert. In these islands is the interesting study of the meeting and admixture of the Polynesian and Melanesian races, at the same time to the casual eye there is nothing in racial characteristics very striking. The natives are addicted to chewing the betel nut, and liming their hair, more, however, to destroy vermin than for ornament. There is much diversity in the native languages, at least forty are known to

occur, and the list is by no means complete. There is in the Solomons a decided shortage of native labor, a problem that is causing planters some concern for future developments. The indentured native, too, in the past has been a much pampered person, and his efforts not as satisfactory as they might be.

All trade is done with Australia. With copra and other products exported, and merchandise imported, the amount runs to hundreds of thousands of value a year, and the war has not made any appreciable difference. Copra, rubber, timber, bananas, cotton, and pearl shell were the products chiefly exported a few years back, but the demand for copra has meant its rapid extension to the neglect of the others. Ivory nuts are fairly plentiful, and before the war commanded \$75 a ton. No doubt this product will be developed, for Japan, in place of Germany, is coming to the fore in button making, the nut being especially serviceable for that purpose. There is a great variety of timbers, but a classification has never been taken, though it is recognized that the Solomons can provide from its many forests all commercial timbers.

Prospecting for minerals has not been undertaken or encouraged, owing to the still uncertain temper of the natives; it is supposed, however, that gold and copper will be found in abundance.

With copra, the raising of stock on the plantations will, there is no doubt, ultimately become the two chief industries of the group. The cattle serve the necessary purpose of keeping matured plantations free from grass, and they become remarkably sleek and prime from the succulent herbage. In 1916, 200 head of fat cattle were sent from Lever Bros.' plantation to Sydney, and were sold at an average of \$100 per head. Animals, such as birds, snakes and insects are common in variety, but calling for no particular attention; while in the Solomon waters are to be found great quantities of turtles, especially the species from which the commercial tortoise-shell is procured.

THE GILBERT ISLANDS

THESE islands, or atolls, as they are generally called, are scattered about the Equator, some to the north and some to the south, the total area being about 170 square miles. Atolls are of coral formation, but a few feet above the level of the sea, in some cases covered with a thin layer of rich soil which produces in good seasons abundance of cocoanuts and other palms, breadfruit, taro and other coarse roots. The atolls chain fashion are linked together, making circular or horseshoe shapes surrounding lakes of deep water called lagoons, and these lagoons may be a mile to fifty miles apart, and 10 to 100 miles in circumference. It is remarkable that these low set, scantily clothed atolls are densely populated and by one of the most promising and vigorous of the Pacific races, accounted the "giants of the Pacific" they are so tall and muscular. The native population is equal to 40,000; the white population, consisting of Government officials, missionaries and traders, would hardly be more than 200.

These islands, with the Ellice group, were formed into a Protectorate by the British in 1893, and then in 1915 with Ocean Island and some other smaller islands and groups to be found about the Equator, the lot was declared the Crown Colony of the Gilberts and Ellice.

In 1890 the Gilbert islanders were noted for their cruelty and blood-thirstiness, and their persistent wars with neighboring islands. In those days, too, they were abducted and taken off in hundreds to the mines of South America, but few returning. The contact with the white man of the black-birding and the "Bully Hayes" (the notorious Pirate of the Pacific) types, resulted in the introduction of shocking and

decimating diseases, and quickly this vigorous race dwindled almost to extinction, despite the heroic and energetic labors of the missions. Then British officials came to the work of rescue, and to-day their efforts are crowned by a success that could not have been thought possible. The finest native hospital—it is really a large village—in the Pacific islands has been built at Tarawa, the chief Government station of the Gilberts, and the people are encouraged to come from all atolls to receive medical attention. The staff of the hospital consists of a highly credentialed European doctor, assisted by his wife, also a qualified doctor—a Fijian, Dr. P. Sowani, renowned for his work in surgery—a white matron and a very large staff of native men orderlies and women nurses, including several half-caste women especially trained in midwifery and the care of children. Whole families at times take up their abode in the large, cool, native huts distributed about the beautiful grounds of the hospital, and they want for nothing. The hospital is a public institution maintained out of the revenues derived from the annual sale of the native copra, and so patients are not worried by hospital fees.

This humane and successful treatment of the people is resulting in a fine, wholesome race, and a very fast increasing population. A decided factor in this healing and the excellent health of the islanders is the assistance given to the officials by the natives themselves, through their honest and keen interpretation of a class of self-government allowed them by the Administration. It is said these people have a talent for self-government, inasmuch as they look to do things wisely, progressively and not with any selfish ideals of protecting themselves and their interests, with the ultimate idea of declaring the Gilberts independent of British rule. These shrewd natives realize the influence of, as they appreciate their security under, British protection, and in their self-government they see that all regulations for the health of the people are strictly carried out, that work on the planta-

tions (cocoanut) is faithfully performed, for most plantations are owned by the natives and few by white men, and that all dues to revenues from fines for misconduct of the breaking of regulations are collected and remitted to the authorities. There is a complete civil service, consisting of native magistrates, who hold their own courts, and fine and imprison for all minor and tribal offenses—the courts punish for serious misdemeanors, which are strikingly few—and the magistrates' scribes or clerks note all proceedings, make monthly reports, collect all moneys, and give officially signed receipts for every penny passed through their hands.

To support the magistrates, there is a very intelligent body of native police, also sanitary, jail and plantation officials, inspectors and a well-educated lot of interpreters. As an instance of the care with which this native self-government protects the health of the native and white population, it is proclaimed a serious offense for native householders to allow refuse to accumulate near their homes or along the beautiful roads which are to be found in the Gilberts.

All the native plantations are laid out after correct, well managed modern ideas, and grass, weeds or dead palms are not to be seen anywhere, with the result that though the Gilberts, like most of the islands of the central Pacific, are subject to long, severe droughts, the careful and scientific management of the cocoanut plantations is assuring a generous supply of the staple food. The officials, too, have taught the islanders the benefits of farming and vegetable and fruit growing, and thin as is the soil of the atolls they are cultivating many European fruits, vegetables and even cereals, and are making the periods of famine that once came too frequently to the drought-stricken islands almost impossible, and in time will, it is certain, by their superior knowledge, absolutely prevent famine.

These natives are all civilized nowadays, and many of them are receiving under Government support a good com-

mercial education. In fact, the Administration has decided to found a college for the training of native civil servants, and wisely in these days insisting on all learning the English language. The native police gain emolument and promotion by their success in writing and speaking English.

Think of a people but 30 years ago cruel and aggressive, basely treated by infamous white men, decimated by horrible diseases, drunkards and capable of abominable crimes, and then see them in 1919, a splendid people, increasing in numbers, wholesome, sober, educated, progressive and carrying on with wonderful wisdom a self-government. The climate of the group, though hot, is healthy and there is no malaria.

PAPUA OR BRITISH NEW GUINEA

NO account of Papua would be complete without reference to the splendid work of its able Lieut.-Governor—John Hubert Plunkett Murray. He has guided the territory through its most critical era. In 1908 when he assumed office the annual territorial revenue was less than \$150,000. To-day, notwithstanding four years of adversity born of the war, the revenue is nearly \$350,000 per annum, exclusive of annual subsidy. In 1918 he was able to give back to the Commonwealth \$50,000—a third of that subsidy; and it will not be surprising if, at the expiration of another ten years, or perhaps even seven, he will be able to announce that Papua can stand alone.

One of the most critical times of any tropical state is when its agricultural resources are being tested. That time for Papua has now passed. Ten years ago there was not a plantation worthy of the name in Papua, and yet to-day we see upward of 50 (exclusive of the smaller holdings) in operation, and many of them exporting rubber, copra, and sisal hemp, the three chief products of the land.

With this increase in operations the number of indentured native laborers assigned annually to Europeans has grown from 2,000 to 10,000, and according to a recognized authority there will be another 10,000, and probably more, available for indenture within the next decade. Compare this with the Solomons, Samoa or Fiji!

As the "Outside" tribes, meaning those in the far interior come more under the influence of the Government, districts which are at present closed to recruiting will be opened to

employers. To help this and other purposes along, Judge Murray has encouraged his District Officers to explore even the remotest parts of their districts. The response to his exhortations in this connection has been most satisfactory. Of the 14 districts into which the territory is divided for administrative purposes, only three remain partially unexplored—the Daru, Kikori, and Kerema districts.

The other eleven districts are all more or less well known, patrol officers and magistrates having penetrated into their innermost recesses. The great Owen Stanley Range, with its 13,000-foot peaks, has been crossed and recrossed by these officers, and the numerous tribes living on its slopes are gradually being brought under government influence. As soon as this is accomplished they become new fields open to the recruiters of plantation labor.

It will be readily understood that these natives, little more than savages when they first enter the labor field, require someone to watch their interests and to guide them to understand and fulfill their obligations to their employers under their contracts of service. This duty has, of course, been taken up by the government, and the guiding hand of Judge Murray has always been visible directing his officers along a path that is often strewn with obstacles.

A native enters into a contract of service for a term varying from six months to three years (the maximum allowed by law) according to the wishes of the native.

The employer undertakes the following: To pay the native a monthly wage of say \$2.50 or \$3.75, to provide him with a blanket, 10-inch cloth, and, where necessary, mosquito net, also 1½ lbs. rice (daily), 1 lb. meat, 2 sticks of tobacco, soap and salt (weekly).

These items, together with fares to and from the natives' homes, recruiting fees, etc., bring the annual cost of a laborer up to \$90 or \$100.

On the other hand a native who deserts from his employer without reasonable excuse (assault by employer would

be one) or who, except on account of ill-health or other lawful excuse, fails to show ordinary diligence in the performance of work allotted him under his contract, or refuses to do such work, may be imprisoned for a period of—usually a month. No wages due under a contract are payable to a native for any time that he is in prison, and no time during which he is in prison is counted in reckoning the time which he must serve in order to complete his contract. Thus the law supports employer and employee, and it is to the credit of both that breaches of duty are comparatively few. In order to see that these duties are discharged, magistrates and inspectors pay monthly visits to the plantations in their respective districts, when breaches are dealt with on the spot. When an employer beats a native (and is convicted) on three consecutive occasions, he may be not only fined but forbidden to employ native labor. This drastic action, which practically prevents a man earning a living in Papua, is only carried out in grave cases.

Judge Murray's latest step is to cause a bill to be passed by the Australian Legislature enabling the natives to be taxed; not, however, for so crude a reason (often given) that they *should* be taxed, but in order that they may receive—intra alia—some primary and technical education. Thus the money raised by the tax will be spent in teaching them to take their places as artisans, mechanics, agriculturists, etc., for as the Lieut.-Governor points out in his last annual report, Papua will never be a white man's country in the sense that Europeans will settle extensively, marry and live there, as in colder climes; so that as development goes on, as it surely must, the Papuan, like the Javanese, will be able to assist more and more in the work of his country. A few years ago it was a singular thing to see a Papuan doing a bit of rough painting or carpentering, yet to-day you will see them, though not in large numbers, driving launches, clerking, building houses and boats—in fact, doing most things that a skilled laborer can do. The tax mentioned above

will be collected yearly and will amount to from \$2.50 to \$5.00, payable with some exceptions by all males between 17 and 40.

Among the pioneers of Papua the name of Sir Rupert Clarke, an Australian, will always be prominent. Over ten years ago his resource and ingenuity brought into being the Kanosia rubber plantation near Port Moresby, 385 miles from Cooktown. This was followed by others—the Rorona, Galley Reach, Kemp Welch River, Veimauri and the New Guinea rubber estates under the management of M. A. Bloomfield. To-day, the visitor can ride for miles through these promising properties, see thousands of pounds of rubber and hemp being packed for export. He can, if he will inspect some of the finest native accommodation houses in Papua, see a thousand or more native laborers in varying degrees of civilization, all helping in the work of progress. There is the man from the muddy delta in the Gulf of Papua where cannibalism was most rife until the government taught them better—here a stalwart warrior from the Mambare, six hundred miles from the Gulf, and there a knock-kneed mountaineer from the slopes of the Chirima.

DUTCH NEW GUINEA

LITTLE as the average man knows of British New Guinea, he knows less still of Dutch New Guinea. This can be attributed partly to the fact that the Dutch have done practically nothing with their share of the island. Their idea is to discover what is in a country and the nature of its resources before attempting in any way to develop it. It boasts the highest mountains in New Guinea—some of them nearly 16,000 feet high—well above the line of perpetual snow. The chief town, if such it could be called, is Merauke, on the western coast.

The area under the Dutch flag is approximately 120,000 square miles, but apart from three or four posts—none of which is inland—the government has made little or no attempt to control it or extend its influence into the interior.

- Cannibalism is still rife in many parts and occasionally tribes have been known to cross into Papua and wipe out some of the unfortunate people inhabiting the border. Chief among these marauding tribes were the Tugelas. Until protests were made by the Papuan Government to the Dutch, these warlike people carried out their raids practically unrestrained, and the Bensbach River district in the south witnessed many a bloody massacre, some of which occurred during the last five years.

In 1914 the Dutch Government sent a trusted official in the person of Monsieur Coenen to Papua to study the ways and methods of the administration, with a view of commencing serious work in their own portion. The result of that gentleman's visit has not yet been seen, for no real movement has apparently been made by his government to encourage the development of the resources of the country—

whatever they might be—or bring about the civilization of the numerous tribes killing and eating one another in the interior.

It is high time the Dutch awoke to their responsibilities in New Guinea. They would do well if, instead of importing Javanese police, etc., they set about teaching the natives to understand and take an active part in the work of their country.

A New Guinea resident, who supplies this data, claims that it was the dream of Germany to obtain possession, by conquest or purchase, of all Dutch New Guinea.

TAHITI

Summer Isles of Eden
Lying in dark purple spheres of sea.

EVERY traveler has extolled the beauty of Tahiti. The Society Islands, of which Tahiti is the principal, are among the most picturesque in the world, and form one of the earliest posts of the London Missionary Society, which began work there in 1796.

Called Otaheite, which means "From Tahiti," by Captain Cook, history has thrown a halo of romance around this interesting group. Cook made a long stay in the Society Islands, and took away with him on his first visit a young Tahitian named Omai. He went to England with his distinguished patron; was presented at court; was introduced to the fashionable society of the day; was shaken by the hand by George III, and was taken back by the great navigator, after all this grandeur, to Tahiti in 1776.

Two years later Bligh came to Tahiti in the *Bounty* to collect bread-fruit trees, which it was intended to transplant in the West Indies. The *Bounty* stayed in Tahiti for nine months, and at last sailed away, but the majority of the crew had left their hearts in the keeping of the beautiful belles of that Pacific paradise. When twenty-four days out from Tahiti, the celebrated mutiny occurred. Bligh was sent adrift in the *Bounty's* cutter with eighteen of the ship's company who remained faithful to him, and after enduring terrible hardships, eventually safely reached the Dutch East Indies. The mutineers returned to Tahiti and its seductive pleasures, its plenty, love, luxury and idleness, and then some of them, with a number of young Tahitian women, sailed far away to

A Sunken Ship That Earned a Fortune

How the Walküre was scuttled, bought for \$29,000,
raised and sold for \$825,000



Courtesy Popular Science

STEAMER WALKÜRE, SUNK BY GERMANS AT PAPEETE, TAHITI

The vessel was only slightly damaged, so her captors opened her seacocks and sunk her to prevent further attack. Only her two masts, stack and flying bridge remained visible above water.



Courtesy Popular Science

COFFERDAM FOR RAISING STEAMER WALKÜRE AT TAHITI

The cofferdam after it had been lowered in place. The thickness of the planks increased with the depth of immersion.



INLAND SEA OF JAPAN

hide themselves on Pitcairn Island, about which I shall have more to say in a later chapter.

Tahiti has become an appendage of France, mainly as the result of conquest during the reign of Louis Philippe. History tells us that early in January, 1844, Captain Bruat landed a strong force, hauled down Queen Pomare's standard and hoisted the French flag. The islands have now become the chief French colony in the eastern Pacific, with Tahiti as the center of Gallic authority.

Tahiti is formed by two distinct mountains of great elevation, which are connected by a long, narrow isthmus of about three miles in width. Consisting as it does of volcanic ridges of inexhaustible fertility, and valleys watered by abundant streams, this island is of much commercial value. Its delightful climate brings to maturity all the products of the tropics, which are nowhere to be found in greater fulness and perfection. Papeete, the capital, is a gay little town, remarkably cosmopolitan in its elements and Parisian in its tone and manners. The main thoroughfare, which passes through Papeete, continues right round the island. The most beautiful boulevards in the town are opposite the post office and the Governor's residence.

In the square is a rotunda, and it is here that the residents and natives assemble to hold their fête on July 14th—the anniversary of the Fall of the Bastille, the national holiday of France. A week before the fête, the Governor sends a small steamboat to bring the natives to the festival, which is opened on the 13th with an official ceremony. The natives march in procession, carrying, on bamboo poles, supplies of live pigs and poultry, as well as all kinds of fruit and other products of the islands.

In an open space in the Parliament Buildings a show of all the articles mentioned is held and prizes are awarded by the Governor. Canoe races are a feature of the festival. The natives are a fine and handsome people; but civilization, disease, liquor and admixture with Chinese coolies have sadly

deteriorated the race "surpassing all others in physical beauty" that excited Cook's admiration. Of late years the native population had been stationary, neither increasing nor decreasing, but large drafts of young men volunteered for service at the front with the French Colonial troops, and this, I am afraid, will have the effect of greatly reducing the population. They traveled to New Caledonia via Sydney to undergo drill. The poor fellows were not used to wearing boots, so they went barefoot and carried their boots across their shoulders and often caught cold. Also, the recent ravage of the influenza in Tahiti has sadly depleted the native population.

Tahiti and the adjacent islands were swept by a great hurricane in February, 1906, and many lives were lost, and much damage done. Shortly after the war broke out the German cruisers *Scharnhorst* and *Gneisenau* (which afterward were sunk by the British in the battle off the Falkland Islands) bombarded Papeete, destroying a number of the principal buildings and sinking the shipping in the harbor (see illustration).

Tahiti is twelve days' sail from San Francisco by steamer. The Union Steamship Company, of New Zealand, maintains a line of steamers between the Dominion and San Francisco, calling at Papeete. Tropical fruits grow in abundance, and copra, sugar and cotton are exported. The animals consist of cattle, sheep, pigs, goats and horses (a small breed), which thrive well. In years gone by, some means of communication must have existed between various groups of islands, as all old Maoris, Tahitians and Raratongas understand each other and their Saga preserves the legends of such voyages.

To the east of Tahiti, the Tuamotu, or Low Archipelago, extends for many miles and affords rich pearl-shelling grounds. Owing to the introduction of diving-machines, the pearl shell was obtained in such immense quantities by scooping the lagoons, that the French Government introduced a closed season. In recent years no diving machines are allowed, and

native divers are only permitted to dive for four months in the year. In visiting pearling grounds in various parts of the world, I have heard almost incredible statements as to the depth to which divers can go. In Torres Straits, Japanese divers reach greater depths than any other pearl divers engaged. Female divers in Ago Bay, Japan, who cultivate pearls, dive to an incredible depth, but in the Tuamotu group, the Tahitians are credited with diving nineteen fathoms. When descending, they take a chunk of lead in each hand, and upon reaching the bottom, drop the lead and grap a pearl shell between their fingers. In 1899 an old man dived in seventeen and one-half fathoms, at Hikuen, and returned to the surface in two minutes and forty-five seconds, bringing up two pearl shells.

Black pearls are frequently found here. Jack London, in one of his novels, accuses a red-headed storekeeper at Papeete of dyeing pearls black and selling them to tourists. Steps were taken by the storekeeper to prosecute London for libel; but the author had such convincing proofs that the case was dropped.

The island of Morea, about twelve miles from Tahiti, is claimed to be the most beautiful island paradise in the world, rich in flowers, trees, streams and jagged mountains. Alert to its beauties, a moving picture company sent operators from Los Angeles to obtain pictures.

The Gambier Islands, or Mangareva, are also a part of the French possessions. A party of Mormons first attempted the civilization of the people. They were replaced by some French Catholic missionaries, who arrived in 1834. The members of the United States surveying expedition, who visited the islands some years ago, reported that they were much impressed by the beauty of the Roman Catholic Cathedral on Mangareva. The candlesticks were of pure gold and the altar and reading desks were composed almost entirely of pearls of great value. The pearl-fishers upon returning from their excursions donate tithes to their church.

The Marquesas Islands are a very beautiful group, and the natives were in the old days accounted one of the handsomest of the races in the South Seas, but they are dying off with appalling rapidity; European and Chinese vices, disease and change of customs having done their work. In 1850 the islands were estimated to contain 50,000 inhabitants. Now there are less than 3,000. If this rate of decrease goes on, it is only a matter of a very few years when the Marquesans will have vanished altogether.

I cannot conclude this chapter on Tahiti without referring to a remarkable character who lived there, or did, till a little while ago—Ernest Wilfred Darling, the “nature man,” as he styled himself, who abandoned the customs, food and clothing of everyday civilization of American cities, for the open air, the fruit diet, and the simple life of Tahiti. The story goes that in his youth Darling became deeply interested in the Bible. He read and pondered over it, and the more he read and pondered, the clearer he believed that man—the present day man—did not live naturally as the Lord intended him to live. Darling decided that he would eat the fruits off the trees, abandon the clothing that generations had developed, and go about just as created. So he set about to find his Eden, and decided that Tahiti fulfilled his demands. Thither he went.

The Governor presented the “crazy” American with a piece of land high up on the mountains, with the clear understanding that he would stay there with his peculiar ideas. Fruits and herbs grew there in plenty. The air was balmy and fine, and the view delightful. There he could play “Adam in Paradise” to his heart’s content. Darling, acquiescent, sallied forth and claimed the mountains. Here, indeed, was his dream of paradise. In this world-forgotten place he could find ample time for his meditations. On the top of his mountain he built a simple hut of palm leaves and branches. He changed the virgin soil of his domain from a wilderness of tropical waste to a food-yielding garden. In a short time he grew independent of the natives, as his plantations became very pro-

ductive. He lived in absolute solitude. His skin became the color of bronze—his hair and beard grew long.

When Darling had lived his lonely life for more than a year, he took a wife, a comely young native girl. After four years of this life came the test of Darling's convictions. An uncle of his died and willed him a fortune of \$500,000 under the conditions that he leave his island-wife, return to his native land, and live like a normal being. But Darling smiled a superior smile at the suggestion.

"Why," he explained, "what do I want with money?" "What could money procure me better than I've got—happiness, health and peace of mind, from the knowledge of leading the life that I know God intended man to live?"

His inheritance went elsewhere. But the philosopher did not regret his decision. He was still happy as ever on the top of his mountain on the lovely tropical island, until influenza killed him, December 18, 1918. To the end the natives worshiped him, and the Frenchmen debated over him at their afternoon absinthe on the veranda of the Club des Etrangers in Papeete.

TONGA

A QUAIN T LITTLE KINGDOM—SHIRLEY BAKER—SOCIALISM IN PRACTICE

THE little kingdom of Tonga is the one remaining nominally independent kingdom of the Pacific. Within the memory of many who have reached their three score years, Tahiti, Hawaii, Fiji, Samoa and Raratonga have been independent. Now the French tricolor floats over Tahiti, and the American ensign over Hawaii and part of Samoa. Fiji and Raratonga are parts of the British Empire, but Tonga, while under British protection, still flies its own flag. It is a quaint little kingdom.

The Tonga Archipelago consists of three large islands, Tongatabu, Haapai and Vavau, and about a hundred smaller ones, including Niuafuou, famed for the size of its cocoanuts, and Niuatobutabu, sometimes called Keppell's Island. Many of the islands are mere banks of sand and coral, giving foothold to a few palms, and nearly all are on a dead level. Of the few lofty islands, Vavau, at the northern end of the group, is justly celebrated for its beauty and its lovely landlocked harbor, one of the best in the Southern Pacific. All the islands are clothed with rich tropical vegetation, feathered with waving cocoanut palms, and upon any of them the jaded seeker after rest might easily be content to spend the rest of his days—"the world forgetting, by the world forgot"—for Tonga is one of the few places that remain absolutely cut off from the outside world, save for the monthly service provided by the Union Steamship Company and occasional sailing crafts. The Germans before the war were getting a strong grip on the trade.

The government of Tonga is described as a limited monarchy, with the British Consul the power behind the throne.

The revenues of the Tongan Islands amount to \$250,000 a year, half of which is absorbed in paying salaries to govern the population of 20,000 people. The chief items are: King, \$10,000 a year; Premier, \$3,000; several cabinet ministers, from \$1,000 to \$2,500 each; fifty members of Parliament, and a host of civil servants, many of whom are New Zealanders, drawing from \$1,000 to \$3,000 each, yearly.

The Parliament of Tonga is constituted of "Nobles" and others, in which it follows somewhat on the lines of England. The "Nobles" are the lords of districts whose forebears were powerful chiefs when the king's father conquered the islands, sixty or more years ago. It was not politic to have so many chiefs out against him, so he created them "Nobles," an hereditary title, which carries with it a seat in Parliament, for which they are paid \$150 a year.

The prime minister, Tui Yakano, is a fine type of man, shrewd and highly intelligent. The intricate maze of Tongan political affairs a few years ago forms the subject of a most entertaining book, written by Mr. Basil Thomson, who was sent down to Tonga by the High Commissioner of the Western Pacific, to endeavor to straighten out things. It is now more than sixty years since the first king obtained complete control, and a few years ago the second monarch was given five minutes by the British commissioner to decide whether he would agree to certain proposals or be summarily deposed. He had sufficient common sense to choose the former alternative, but the inevitable is only postponed. It is commonly held that Great Britain will assume control some day. New Zealand would like to annex the islands. George II, the king, died in 1918 of fatty degeneration of the heart, and his eighteen-year old daughter is now "Queen of Tonga."

Many a quaint story has been told of the way in which the brown kingdom has in its miniature fashion imitated the ways of European monarchies. As an example of their self-imagined importance, it may be mentioned that when the news of the Franco-Prussian War reached the islands, the Tongan

Government held a special cabinet meeting and solemnly passed a resolution to observe strict neutrality, and I am told exactly the same procedure was adopted in the case of the recent European War. Think of the difference it would have made, had Tonga, with its standing army of twenty warriors bold, with their rusty muskets and antiquated pieces of cannon, lent their powerful aid to the combatants!

The late Rev. Shirley Baker gave Tonga its constitution, and the great error he made was that of adopting the constitutional methods of great nations, totally unsuited for a mere handful of people, and in the long run bound to lead to difficulties. At one time a Wesleyan Methodist missionary, Mr. Baker, became the first premier and continued to hold the office for many years. At first he was undoubtedly a sincere and sagacious friend of the people, but he became a victim to ambition. He was a sort of Bismarck, whose control grew to be absolute as the faculties of the old king weakened through age. After endless religious and financial troubles had been caused, he was banished from Tonga by a British man-of-war, sent over for the purpose by the Governor of Fiji, Sir John Thurston, and for many years afterward resided in Auckland, New Zealand. He was undoubtedly a man of high attainments, whatever else may be said of him. He invested largely in New Zealand, and later became a large shareholder in the bank of New Zealand. When the bank got into difficulty, Mr. Baker lost \$25,000. After a brief period, the bank recovered and paid shareholders and depositors in full.

The Tongan members of Parliament take their business very seriously, and religion and politics get mixed up in a strange way. Every member begins his speech with a scriptural quotation and ends with one, His Majesty setting the example in his speech from the throne. The following was the king's speech at the opening of a session of Tonga's congress:

"My salutation to the Nobles, the Premier and the Representatives. The first thing that it is right we should do is to give

thanks and praise to the Lord; and in the rendering of these thanks, who is capable of explanation or who can discuss it and when is the time to speak and tell of the excessive good beyond bounds precious and important that have been rendered by the unforeseen, and also we in Tonga that we should be fortunate and that all should be well with the Tonga Islands, up to to-day who is it from whom? From your people? No! Or even from me? It is not that. Or our combined strength? Who can so much as dream or picture the mountains of strength by which worldly strength depends, such as the possession of extensive countries, and millions of people, and filled with great wealth, also possessed with wisdom and learning. These are the living stones which are the foundation of countries, which stand like great mountains and cannot be overcome.

"But the existence and prosperity of you and I in Tonga this day is from the Lord only. Is this a matter to stint our thanks? Think of the great number of graves, important, and difficult things that have happened within the last year. Some Governments have gone to war, and some countries have been lost, and there have been famines and pestilences. Therefore, when it appears thus that our little group of islands has been brought safely through it all. I say this, and I think you are of the same opinion as I am, there can be no doubt of His condescension to us in Tonga. Yes, be praised. That the promises are still sure.

Continue your journey in peace,
Never fear nor tremble,
Though waves be great and winds high,
He (the Lord) knows the path by which to go.

"May Heaven look down with favor on your Assembly, and guide your efforts. Even so. The Lord be with you. Amen."

The king was a gentleman whom it must have been a pleasure to meet. Biblical allusions oozed from him. Thanks exuded from his very pores. He was said to be extremely shy and retiring, and did not, as a rule, give permission to travelers to view the palace; but it is generally possible to see the royal chapel, which is a handsome building. So, for the delectation of friends in Europe, those who sought the distinction of "having dined with a king" were most likely to be disappointed.

There is no poverty in Tonga, but there is no wealth. The tribal or communal system which has prevailed from time immemorial is altogether opposed to any member of the tribe accumulating property. A man's relations have the right to come and live with him, and if necessity arises, to share what he possesses. It would be the height of meanness on his part to refuse a request from a kinsman. One of the chiefs lost his Tongan wife some few years ago. He married a Samoan of high rank. Ever since, his house has had constant visitors from her Samoan relatives. They are nearly all related to him, because they are related to her. These Samoans came to Tonga with nothing; they returned with well-stocked sandalwood chests which they had "cadged" from their relative's husband, who would not break Polynesian etiquette by refusal, but preferred to get in debt to the traders!

Tonga presents a most instructive lesson to Socialists. There are to be seen exhibitions of both the strength and the weakness of Socialism. They are a people without poverty, but a people without individualism. There is no place in Tongan Socialism for the man who would seek to rise above his fellows. To those whose ideals of life are realized in short hours of labor, abundance of food and neither poverty nor riches, Tonga should be Utopia.

The Tongans are a big-boned, large-limbed race. They have darker skins than the neighboring islanders, and they surpass these others in intelligence. The consciousness of their superiority is said to affect their tones and even their gait. The relations between the sexes are conspicuously pure.* Their girls do not hang about the settlements or congregate on the pier and beaches, as women do in other islands. Many European settlers marry Tongan women. They make excellent cooks and housewives, but throughout their lives they remain mere children in their habits and ideas.

* A fellow traveler, Dr. Alfred Goldsborough Mayor, who knows native life, read this manuscript and wrote: "They have changed since I left." So experiences differ.

The singing of the Tongans is always a surprise to visitors. The late king was a musical enthusiast. There are some Tongan maidens who have voices of such range that tourists who have heard them, say that if they were trained they would rank among the queens of song. Their singing is all sacred and unaccompanied. It is questionable whether there is a happier, more contented and more law-abiding race on our planet than the Tongans.

The Tongans are very fond of the pleasures of their white brethren, such as cricket and dancing. They attend state balls in gala attire, copying the styles of their white sisters, but when the hours grow late, the women remove their shoes and stockings, and the ball proceeds with renewed vigor.

Early missionary effort in the islands was marked by frequent strife. The Rev. Shirley Baker (Wesleyan), who was the storm center of much of the trouble, got into a dispute with the Roman Catholic missionaries. The French sent a man-of-war to Tonga, apologies were made, and friction in that quarter disappeared. Quarrels among the Wesleyan Methodists themselves did not end so happily. Baker and his co-workers had secured a large number of converts in the islands, and had made their branch of the Wesleyan Church rich in both lands and cash. Thousands of pounds were sent by them from Tonga to the Wesleyan body in Sydney. Baker asked for an accounting. This was refused by the Sydney conference, which held that the subscriptions were for missions generally. Baker thereupon set up an independent Wesleyan Church, known as the Tonga Free Church. Most of the native converts followed Baker to the new churches he built, letting the old places of worship fall into disrepair.

Baker had designed a national ensign and the royal standard with three club knives and a dove carrying an olive branch. But the symbol of peace had no soothing effect on the rival church factions. As Baker was driving home one night with his daughter and son, he was ambushed and fired upon by a party of his enemies. Baker was unhurt, but his son's arm

was broken and his daughter also wounded. A number of men were arrested and four of them were found guilty and shot.

More or less friction continued for years, and various influences were resorted to by rival branches of the Wesleyan body to win the adherence of the natives.

Volcanoes abound in the Tongan group, and one or more are in a state of eruption. The leaders are said to have made use of this phenomenon to point out that when some particular crater was in eruption, it was a sign of the wrath of Heaven against members of the rival body. Sometimes the eruptions of Niuafouu could be depended upon to shoot forth fire and brimstone pretty regularly, and the Wesleyans claimed that it spoke upon their behalf against the Free Church. Then the Tofua crater would break out, and this was used by the Free Church to prove that the Divine Wrath was turned on the Wesleyans.

Subterranean volcanic eruptions frequently occur in the waters around the Tongan and Samoan Islands. The log of the steamer *Ventura* in August, 1917, reported passing through a sea of pumice. Captain Dawson stated that pieces of pumice, some as large as a man's body, were sighted floating off Tonga.

Basil Thomson, well-known island administrator, says, "Many people blame Shirley Baker for the deplorable conditions that made the old Wesleyan Church a byword." But he is not alone to blame. The Wesleyans blamed the Catholic priests for assisting the king's enemies to rebellion, so as to justify themselves for abusing them, to half-converted natives. The French priests found a large body of natives unconverted, and entered upon a campaign of missionary labors. Then Mr. Chapman, one of the Wesleyan missionaries, translated at a Fiji meeting some wild statements that Father Chiniquy, a Canadian ex-priest, had published. Two of the priests sued Chapman, and although they lost their case, they had the satisfaction of hearing the Chief Justice of Fiji give Chapman a severe castigation for his action.

The Wesleyans allow a native to become a local preacher without entering the ministry. The white Wesleyan missionaries were paid \$1,000 a year, and allowed a wooden house, while the native preachers were only paid \$100 a year and had a grass house supplied as a residence. Finally, they rebelled against the distinction.

The architecture of a Tongan church has a distinct character. The building has the oval shape of a native house, and if it is thatched, as it generally is, presents a picturesque appearance. Sometimes a church is fitted with pews, but quite as often there are no seats, the congregation squatting cross-legged on the floor, the men on one side and the women on the other.

SAMOA

A land of love, of liberty and ease,
Where labor wearies not, nor cares suppress
Th' eternal flow of rustic happiness.

FOR beauty and romance, the Samoan, or Navigator Islands, stand alone, and those who have once visited them are forever haunted with their bewitching charm. They possess all the glory and luxuriance of plant life met within latitudes bordering on the equator, and yet fanned with perpetual sea-breezes. Such a climate makes for a life of delight.

The Samoan Islands lie to the northeast of Fiji. So far as we have any record, the Dutch navigator Jacob Roggewein was the first to sight the group. Captain Cook knew the islands well, and another great navigator, the French naval officer La Pérouse, who arrived in Botany Bay, with his two exploring ships, the *Boussole* and the *Astrolabe*, when Governor Phillip was there with his first fleet, had a bitter experience on the same islands. Shortly before he visited the Navigator Islands, as they had been named by Bougainville, with his two ships, he sent a boat's crew ashore at Tutuila—now American Samoa—to obtain a supply of fresh water. The natives, who had seemed to be quite friendly, rushed the landing-party in great force and killed eleven of them. A stone marks the graves of the massacred men. There are various accounts as to the cause of this display of hostility, but the one generally accepted, I believe, is that the fight occurred because one of the natives had been caught stealing something from the boat.

Subsequent explorers were Captain Edwards of the *Pandora*, in 1791, and Otto von Kotzebue, in 1824. In 1830 the celebrated missionary, John Williams, paid his first visit to

Samoa. Surveys of the archipelago were made by the American Explorer-Commander Wilkes, of the United States Navy, whose name deserves to be written largely in South Sea history. He was a man much like Captain Cook, and many of the charts that he prepared are used to this day.

The group consists roughly of a dozen islands, lying between 13.30 degrees and 14.20 degrees south latitude and 169 degrees and 173 degrees west longitude. They are, therefore, thoroughly tropical and lie pretty near that mysterious line where the ship suddenly sails out of one day into the day before. The three principal islands are Savaii, Upolu and Tutuila, Upolu being the most fertile of all and the most picturesque. The total population is in the neighborhood of 39,000, the whites numbering 500. The staple product of the group is copra, of which some 10,000 tons are annually exported. Cocoa and rubber have of late years been largely grown also. A large number of Chinese coolies are at work on the plantations, and labor is also recruited from the other islands, the Samoans themselves not being keen about plantation work, or indenturing themselves to white employers.

The trade of the group used to be largely in the hands of the great German concern, the Deutsches Handels und der Seed inserten Plantagen Gesellschaft, Hamburg, commonly spoken of as the D. H. and P. G., or the "long handle" firm, which vied with Australian firms for the honor of being the biggest trading venture in the Pacific. However, the occupation by the New Zealanders of German Samoa at the outbreak of the war put an end, for the time being at all events, to the activities of the D. H. & P. G., and its Hamburg shareholders no longer draw the huge dividends that its operations used to return.

Germany realized the rich possibilities of the Pacific many years ago. It will be recalled that while England, France, Spain, Portugal and Holland were establishing colonies throughout the world, Germany was only a number of petty kingdoms. After the birth of the German Empire the gov-

ernment realized that if a nation were to be built from the chaotic material at their disposal, it would be necessary to establish colonies for the creation of new markets and the development of new resources for the enrichment of Germany. Emigration from Germany had been increasing, especially to the United States and South America. She had, thereby, been assisting in the development and enrichment of those countries at her own expense. But she was a late comer into the field; all the territory left was a few islands and part of Africa. In the early seventies, shortly after the Suez Canal was opened, she fitted out a large ship with officials and settlers, and the equipment of everything necessary except a throne for the establishment of a seat of government, and dispatched her to Samoa. Owing to the outbreak of the Franco-Prussian War, the ship was recalled at Port Saïd. Germany's dreams were not abandoned, however, only deferred, as her work in the Pacific in recent years demonstrated.

Samoa has not many good harbors. The best is that of Pago Pago, Tutuila, a possession of the United States. Almost entirely landlocked, it affords the best of anchorage, and in addition is one of the prettiest spots in the Pacific. I shall have more to say about Pago Pago in a later chapter.

There has been more intriguing in Samoa than in any other group of the Pacific, rivaling that of South American countries, and it has been the scene in times gone by of considerable fighting between the various native factions, in which Germany, the United States and Great Britain have all at one time or another had a hand. A good and thoroughly authoritative account of early Samoan history was written some years ago by an old friend of mine, the late Judge Mulligan, of Lexington, Kentucky, who was the United States Consul in Apia, and I take the liberty of quoting a portion of it of special interest. He says:

"On the arrival of the missionaries, about 1833, Malietoa, who was christened Davita, was found to be a most powerful chief, his rule extending over the greater part of Savaii and a part of

Upolu, but beyond those districts he had little or no influence. In 1872 the natives of the island applied to General Grant to appoint Colonel A. B. Steinberger, of New York, who had already visited the islands, as a special agent as their general adviser. In 1874 Colonel Steinberger arrived in Samoa with letters of recommendation from General Grant and also with a considerable supply of fire-arms and a fine steam launch.

"National jealousies likewise figured largely in the case, and after a short reign, not exceeding one year in duration, the Colonel was forcibly deported by a British warship, the United States Consul and King Malietoa Laupepa assisting and approving. The result of these measures was an insurrection in favor of the Colonel, then a prisoner on board the *Barracouta*. The king was deposed and compelled to flee to Savaii, and an attempt by Captain Stevens and an active and intriguing missionary to reinstate him, resulted in a conflict at Mulinuu, during which a number of British sailors, and some Samoans lost their lives. Malietoa Laupepa's deposition was confirmed and he was succeeded by his uncle Talavou. For several years the faithful natives waited in vain for the return of the Colonel, to whom they were greatly attached.

"During this time another British warship visited the place on a most fanciful pretext, gave the unoffending natives the option of paying a fine of \$5,000, or submitting to a bombardment. Previous to this the harbor of Pago Pago had been ceded to the United States as a coaling and supply station for naval purposes, and in 1879 the Samoan ambassador, Le Mamea, returned to the islands from Washington, bearing with him a treaty of peace and amity. This was duly ratified by the Samoan Government, which sought in every way to express its gratitude toward the first of the great powers that treated it with courtesy. Feasts were prepared for the officers of the *Adams*, which vessel had returned Le Mamea to the islands, and it is safe to estimate that more than two thousand pigs and an immense number of fowl, fish and other native productions, were presented to the ship.

"Upon the death of Talavau, Laupepa again succeeded, and he in turn was again deposed and exiled by a German fleet, in 1888, on grounds as valid as those which had formerly served the British. An insurrection, under the leadership of Malietoa Mataafa and the active interference of the United States in the matter, resulted in the bringing about the Berlin Conference, which declared in favor of Laupepa. The return of Laupepa and

his reinstatement was in opposition to the wishes of most of the natives, who were heartily tired of him, and who were strongly in favor of the retention of Mataafa, who had defeated the German forces at Vailili. This gave rise to the troubles which have since operated disastrously upon the general welfare of the group.

"In 1893, Laupepa, with the assistance of a German and British warship, defeated Mataafa, near Apia, and shortly afterward, that brave chieftain surrendered to the British ship rather than continue the struggle against the odds opposed to him. Together with some twenty of his principal chiefs, he was deported to the island of Jaluit in the Marshall group. On the return of Laupepa, after his deportation by the Germans, to the pestilential coast of Africa, his first official act was to abdicate in favor of the great chief Mataafa, who had practically won his release. The Berlin Treaty having provided that an election for king should take place, Mataafa had been induced to waive his claim until such time as the free choice of his countrymen should seat him upon the throne. European diplomacy, however, was too much for this simple and trusting chieftain, and the plain meaning of the Berlin Treaty was perverted, and he was driven into rebellion by the clamor of the great majority of his people, who considered that he had been tricked and deeply injured."

The account of the late Judge Mulligan agrees excellently with the best authorities on Samoan history. But it is nearly twenty years ago since it was written and a great deal has happened since.

For a while Samoan affairs were in a hopeless tangle. Then an arrangement was made by which the English, German and American consuls, together with Mataafa and thirteen of his chiefs, formed a provisional government. This did not last long. The Germans, who had all along supported Mataafa, claimed that the formation of this provisional government broke up the Tripartite agreement. The English and Americans were equally positive that this agreement still held. The trouble came when Chief Justice Chambers, America's representative, and Consul Maxse, representing England, resolved to open the courthouse in Apia, in order to try certain prisoners. Mr. Rose, the German consul, acting on behalf of

Mataafa, refused to give up the keys of the courthouse, and a deadlock ensued. H. M. S. *Porpoise* had arrived in Apia, and Captain (now Admiral) Sturdee, who was in command, landed a body of marines and marched them up to the courthouse, where he was met by Consul Rose and Mataafa, backed by a large number of armed warriors. Captain Sturdee demanded the keys, and said that if they were not produced, he would order his armorer to break open the door.

For a while matters were very critical, and it looked as if there would be a fight, but finally the keys were produced. It is not generally known that the *Porpoise* and the German cruiser *Falke* cleared for action on that particular occasion, as it was expected that the German consul would call upon the German warship to uphold him in his refusal to permit the court being opened. Mataafa held possession of Mulinuu for a while, but when the American war vessel *Philadelphia* and the English war vessels *Porpoise*, *Tauranga* and *Royalist* gathered in Apia Harbor, he and his followers retired to a strong position at the back of Apia. He was called upon to surrender himself and his arms to the British and American authorities, but refused. This commenced the last Samoan war. The English and American vessels bombarded the environs of Apia with 6-inch guns. They sent marines into outlying districts, to attack Mataafaites; they organized the Malietoa party and desultory firing was continued for some time. A small number of English and American sailors were killed or wounded through an ambush. Two American naval officers, Ensign Lansdale, and Ensign Monaghan (of Spokane), and one British officer, Lieutenant Angel Hope, besides several bluejackets, lost their lives, and a monument to their memory was erected near Apia.

The Malietoa party, under Lieutenant Gaunt, fought some exciting battles, but finally Mataafa agreed to surrender.

By the Anglo-German agreement of November 14, 1899, ratified by the United States in January, 1900, and signed in Washington, Great Britain renounced all rights in the islands

of Savaii and Upolu, and certain smaller islands near by, in favor of Germany. Germany relinquished in favor of Great Britain her claim to the harbor of Vavau in Tonga, and to territory in the Solomon Islands, and the hinderland rights in Zanzibar (East Africa), the United States securing the island of Tutuila, and islets of the Manua group, so the dividing line between the United States and Germany is the 171st meridian of west longitude.

A good story is told about the Chief Magistrate, Mr. Williams, with whom I had spent many hours on the Pacific, who had been the "guide, philosopher and friend" of the Samoan natives of the island of Savaii. He was from Tipperary. I mention this, as most Irishmen abroad like to boast that they are from Dublin. So successful had he always been in his dealings with natives, that the Germans made him governor, though he could not speak German. Later Mr. Williams visited Germany and interviewed the Kaiser.

"Well, you are a phenomenon—a German official who does not know a word of our language," the Kaiser said laughingly.

"Oh, I know one word, your Majesty," Mr. Williams replied with a broad smile, "Prosit; your Majesty." ("Prosit" is the German equivalent of "Here's to your health.") This pleased the Kaiser, who said, "That's a good word to know, Mr. Williams," as he called for a decanter.

When Samoa was captured by the New Zealand troops, Mr. Williams was again appointed an official. He described to our party a native's method of taking Seidlitz powders. Disregarding the advice of Mr. Williams, who was acting as medical adviser, the native took the powders in the wrong order, with the result that he immediately became the proprietor of a first-class active volcano.

On August 30, 1914, a New Zealand force took possession of German Samoa. This was the first time in the history of the British Empire that one of its dominions had sent an invading force across the ocean, and had captured foreign territory. The appearance on that date of seven British ships of

war and a number of transports laden with troops was a great surprise to the resident Germans, the British and the natives; for of course at that time German cruisers were somewhere in the Pacific, and they had sent word that they were coming. At Apia the Germans had erected a powerful wireless station second only in power to the wireless at Yap in the Carolinas, which was 30 kilowatt.

H. M. S. *Psyche* steamed on ahead under a flag of truce and entered the harbor, after it had been swept of mines. She promptly landed an officer with a demand for the surrender of the islands within half an hour. In the temporary absence of Governor Schultz from the town, this demand was made to his deputy, who intimated that no resistance to the landing of an armed force would be made. The disembarkation of the troops commenced, and in a few minutes after the landing of the covering party, the German flag, that for fourteen years had flown over these islands, had been hauled down and the capture and occupancy of the German possession was completed without the firing of a single shot. The cost to New Zealand of the military occupation in Samoa up to September, 1918, was given at £380,914 (\$2,000,000).

Samoan authorities set examples in some matters for older communities. A shrub called "lantana" grows thickly on some Pacific islands and on the Australian coast. The seed is carried by birds and ruins thousands of acres of splendid land. Several years ago the rulers of Apia passed a law compelling small land owners to destroy lantana growing on their land. Twenty years ago the hills about Honolulu were covered with lantana and the government introduced a parasite to attack it, with the result that it has almost disappeared in some Hawaiian islands. Those possessing time and means, who wish to visit interesting scenes and enter into the life of the islanders off trade routes, can leave the large steamers at Honolulu, Suva, Apia, Papeete or Pago Pago and hire a small steam launch, secure a native crew and cruise about at leisure.

In March, 1918, Messrs. Burnett and Kelly, of Vancouver,

hired a launch at Suva and were able to reach many points in the interior of the Samoan, Tongan and Fijian groups, to see life among the natives, and to remain as long as they wished at different villages where the native life is almost as primitive as it was half a century ago. The farther back they traveled, the more hospitable the natives became. Food was placed before them in abundance, consisting mostly of yams, coconuts, bananas, pineapples, also taro (edible root) and roast pig. The latter was not cooked to their taste.

In crossing Savaii, the travelers proceeded on foot about one hundred miles in ten days, and the weather, it being March, was pleasant. At night they were made welcome in the houses of the natives and mats placed at their disposal for sleeping. Upon entering a house, silence is observed until "Kava" is served to the visitors, and later on during the evening the native girls danced for their entertainment, the males retiring outside. If the traveler is tired, the native women will apply "lomi lomi," a form of massage in the shape of rubbing the limbs with the hands. No money is expected, but presents can be made, consisting of scent, combs, beads or print "lavas lavas," which are worn about the loins.

ROBERT LOUIS STEVENSON — THE FAMOUS HURRICANE

MANY features of romantic interest are connected with the Samoan Islands. It was in 1897 that I first touched at Apia, the home of the late Robert Louis Stevenson. Stevenson had enshrined himself in the hearts of the Samoans and one of the tribes had initiated him as a member.

Mr. Stevenson's widow and her daughter, Mrs. Strong, joined our ship on leaving Apia and traveled to San Francisco, and made themselves very agreeable. They possessed a thorough knowledge of the life and customs of Pacific islanders, and in fact, had a wide knowledge of the world generally. Mrs. Stevenson and her daughter derived no greater pleasure than to sit on the deck, rolling cigarettes, and telling us stories of the fine qualities of the Samoan people. Scores of islanders accompanied them to the ship to bid them farewell. Evidence of their affection was manifest in every quarter. The islanders pulled around our big steamer and sang the Samoan folk songs.

In the bow of one boat was perched a little Samoan girl of regal bearing, called the "taupo" of the tribe. Mrs. Stevenson explained to us that each tribe had its living taupo or mascot, of kingly lineage. She is the leader on all social occasions, a kind of perpetual Queen of the May. Even when rival tribes indulge in warfare, the taupo marches at the head of the soldiers, utterly devoid of fear. According to Mrs. Stevenson, the rival tribes view the respective taupos with a certain amount of awe and veneration, and will not, if they can avoid it, allow any harm to befall them.

The native Samoan is a fine type physically. The people do not overburden themselves with raiment, but have even

more than sufficient for the climate. Like other South Sea Islanders, they have a love for brilliant colors. Still, an erroneous impression prevails as to the amount of clothing worn by the natives. Europeans often imagine the natives' only covering is a pair of ear-rings and a smearing of cocoanut oil. Gilbert, the "Bab" balladist, was quite wrong, at least as far as the Samoans are concerned, when he informed:

Except a shell, a bangle rare,
A feather here, a feather there,
The South Pacific natives wear
Their native nothingness.

The males generally wear a breech cloth about their loins, called a "lava lava," but the girls and women wear a loose-fitting gown of various colors, short at the bottom, and cut low in the body, somewhat resembling the toga or tunic worn by the ancient Romans.

Mr. Stevenson's home was a few miles from Apia, and when he died, his body was interred on a hill about one thousand feet above sea-level. Prior to his death, he expressed a wish to be buried at the top of this hill. The approach is almost inaccessible, so natives cut a road through the forest and carried his body on their shoulders up this precipitous mountain.

The old natives who knew Stevenson still mourn him as a lost brother or father. He was very good to them, and they loved him. There are few left of the old chiefs who were his friends, and those who are alive speak of him with the greatest reverence. To them he will always be their "Tusitala," or teller of tales.

On one voyage, on the *Moana*, in 1898 (Captain Carey), from America to Australia, we arrived at Apia in the morning, and the ship anchored in the offing, the passengers going ashore in small boats. On this day a picnic was given to a half-caste Samoan girl, who had returned from school in New Zealand. On landing, a native driver of a horse and



MEMORIAL ERECTED ON ISLAND OF TUTUILA, AMERICAN SAMOA, IN MEMORY OF 11 MEMBERS OF LA PEROUSE EXPEDITION, MASSACRED IN 1787



MONUMENT ERECTED IN MEMORY OF AMERICAN AND BRITISH NAVAL OFFICERS AND MEN, KILLED AT APIA, SAMOA, 1899

sulky solicited the patronage of an Englishman and myself, offering to take us to the picnic. Two young girls about sixteen asked us for a ride, and as we were not averse to having their company, they jumped in the vehicle and accompanied us.

On arriving at the picnic ground, we witnessed the festivities of the islanders, which took the form of singing and dancing. After standing about awhile, most of the passengers scattered and sat among the natives on the grass. All the girls were smoking cigarettes. When the festivities were over, the native girls kissed the beautiful half-caste girl who was their guest. We thought the Samoans did not speak English, and one passenger from Dayton, Ohio, who did not think they understood, remarked that he wished he was a returned school-girl so that he could get kissed. This half-caste girl turned to him and said in good English:

"Who would kiss you?"

At this picnic, there was sitting next to me a Samoan princess, to whom I had given some cigarettes, and on leaving, she gave me her necklet of beads, of wild rose calyx. When I described the incident to a lady friend in New York later, she laughingly asked me if the princess did not catch cold when she parted with the beads.

We left Apia, about sunset, quite a number of natives coming off in small boats to say good-by. It is the custom among the islands for native girls and boys to dive for silver. A number of natives came on deck to sell curios. One girl was offered a shilling to dive from the hurricane deck. She accepted, and another passenger said he would give a shilling for a lock of her hair, as she might never come up. She agreed, and a pair of scissors was required. Luckily, we had on board Mr. Cowle, of the International Harvester Company. Always out for business, carrying samples of cutters, he produced a pair of scissors, and clipped one of her locks. She smiled on her audience, ascended to the hurricane deck and made a beautiful dive into the sea.

One of the passengers who found much to interest him here was Mr. Prentis, of Cleveland, Ohio. He was studying the habits of the big land crab—a great cocoanut driller—with a view, he said, to finding how he could improve on the twist drill.

The average person has gained a pretty good idea as to the physique of the Samoans. Years ago a troupe of them went to the Columbian Exposition at Chicago, and the Midwinter Fair in San Francisco. Those who saw them will remember their warm brown skins and their black hair, glossy as a raven's plume. They are among the finest races of the Pacific islanders, care-free and light-hearted, and greet every one with a cheerful "talofa," meaning "My love to you." Their women are most comely. The girls develop at thirteen or fourteen years of age, and visitors are surprised at their perfect figures and graceful carriage. No corsets are worn, but the women are as straight as arrows. As they grow older, they become corpulent and lose most of their grace and symmetry.

People who have lived a great part of their lives among them have told me that the standard of morality is very high, but I am afraid they are not so particular as they used to be. Prior to the advent of the whites, a violation of the marriage law was punishable by clubbing the transgressor to death.

Their chief amusement is dancing, and they are among the most graceful performers I ever saw among aborigines in any part of the world. The dances generally consist of sitting on the ground swaying their bodies, and gesticulating with their arms and legs to the accompaniment of plaintive chants. They decorate themselves with flowers, ferns and various kinds of necklets.

Samoan scenery everywhere is gorgeous and magnificent. About ten years ago a volcanic outbreak opened up on the north side of Savaii, and the activity has been going on without intermission ever since. No sightseer could possibly do the important and interesting points in Samoa in less than a month. It would take a good part of the time to get to know

the people, especially the brown young ladies, who are most persuasive and attractive, and who with their charms have so often induced the wanderer to stay in these beautiful islands for the remainder of his life.

One of the principal resorts is Papaseea, or, the "Sliding Rock." The proper way to visit Papaseea is to join in a native picnic party to "shoot the fall." The example of the natives is sure to be followed by the more venturesome visitors, who, having once tasted the fearful joy of shooting like lightning down the inclined plane of the rock into the pool below, will find it difficult to tear themselves away from the fascinating sport. Apart from the pleasure of this novel "toboggan," the ride to Papaseea is well repaid by the natural beauty of the scenery around the falls. There are many other sights around Apia for the entertainment of the traveler.

THE GREAT SAMOAN HURRICANE

Much has been written about the great hurricane of 1899, and the heroic conduct of the commander of the British warship *Calliope*, Captain Kane (afterward Admiral Sir Henry Kane) who died recently. On March 16, 1899, the *Calliope* was riding in the Bay of Apia. Suddenly a terrific hurricane burst over the islands from the league-long waters of the Southern Pacific. The German gunboats, the *Eber*, with the captain, officers and crew of seventy-six men, and the *Adler*, with fifteen on board, were finally wrecked, and many lives lost, while the *Olga*, a fine corvette, was driven ashore and went to pieces. The United States corvette *Vandalia* was wrecked and forty-five men perished, including Captain Schoonmaker, Lieutenant Sutton and Paymaster Arms. The sloop-of-war *Nipsic* ran on the reef, but was subsequently refloated and repaired, and taken to Honolulu. She is now stationed at the United States naval base at Bremerton (Washington). Another American corvette, the *Trenton*, was wrecked, but those on board were saved. She was afterward floated off. No fewer than 130 lives altogether were lost.

Captain Kane, of the British Navy, fortunately having steam up and a superior boat, determined to attempt an escape from the perilous bay in which the *Calliope* had been sheltering. He ordered full steam ahead, and fought his way out in the teeth of the hurricane until he reached open water, where comparative safety was obtained. The British Admiralty, in recording the event, said that the hurricane had caused a disaster unprecedented since the introduction of steam, and expressed itself as follows:

"Captain Kane showed both nerve and decision in determining to steam to sea in the teeth of a hurricane which destroyed all the vessels which remained at the anchorage he left, and in conveying to him the thanks of the Admiralty, my Lords desire to express their thorough approval of his skilful seamanship and of the measures taken by him throughout to secure the safety of his ship."

When the news of the disaster reached Washington, the Secretary of the United States Navy, Mr. B. F. Tracey, recommended that the thanks of the Naval Department be conveyed to Captain Kane through H. M. Government for the assistance he had so generously rendered to the United States Squadron in distress. After the storm had subsided, it was decided to transfer the crews to America. Therefore Lieutenant J. C. Wilson, of the *Vandalia*, was commissioned to proceed to Sydney, where he chartered the steamer *Rockton*, and called at Apia, taking aboard the American survivors, and proceeded to San Francisco.

Valuable assistance was rendered by the natives in the saving of life and property, during the height of the hurricane. The Samoans on this occasion behaved with a noble courage, showing a magnanimity rarely equaled in history. At the gravest peril to themselves, they rescued many of the very men who, but an hour or so before, were trying their utmost to slay them. On March 26, 1899, Admiral Kimberly, who was in charge of the American squadron, wrote as follows:

"Seumanu Tafa, chief of Apia, was the first to man a boat and come to the *Trenton* after she struck the reef; he also ren-

dered valuable assistance in directing the natives engaged in taking out people and public property on shore on the 17th and 18th of March, and was of great service in many ways to us. I most sincerely wish that for his services, a double-banked whale-boat, with its fittings, should be provided for Seumanu, and a suitable sum of money or other present for the following men, who composed his boat's crew, viz., Seumanu, chief of Apia, who understands and speaks English; Muniaiga, generally known as "Jack," speaks English very well; Anapu, son of Seumanu; Taupau, Chief Manono, Mose, Fuapopo, Tete Pita, Ionia, Aritu, Auvaa, Alo and Topu."

In reply thereto, the Secretary of the United States Navy subsequently wrote:

"I have to inform you that the Department has addressed letters to the Secretary of State, requesting him to express through the proper channel its high sense of the bravery and generosity of the Samoans in bringing succor to the shipwrecked officers and men of your squadron, and that it has adopted your recommendation that some substantial recognition of these services should be made by the United States Government. Upon the recommendation of Rear-Admiral Kimberly, and as a mark of appreciation of the valuable assistance rendered by Chief Seumanu to the shipwrecked vessels at Apia, the Department proposes to present him with a double-banked whale boat, with its fittings, and has to direct that you will take the necessary steps to have a suitable boat prepared in California for this purpose."

In a communication dated April 16, 1899, to the Secretary of the United States Navy, Admiral Kimberly thus refers to the conduct of Mr. W. Blacklock:

"Of the foreign residents of Apia, the United States Vice-Consul, Mr. W. Blacklock, was preeminently conspicuous for his energy and good services, not only in saving life, but in caring for the immediate and pressing wants of the survivors of the *Vandalia*, the most of whom were taken to the consulate. Too much cannot be said in justice to his exertions and hospitality on this occasion."

PAGO PAGO

UPON going on deck at sunrise we sight the outlying part of the island of Tutuila, with its sandy beach backed by masses of luxuriant tropical vegetation. This beauty charms our eyes the more as we approach the entrance to the harbor of Pago Pago, the whole scene being one so familiar from my frequent visits that I imagine myself gazing at a suburban arm of Sydney Harbor.

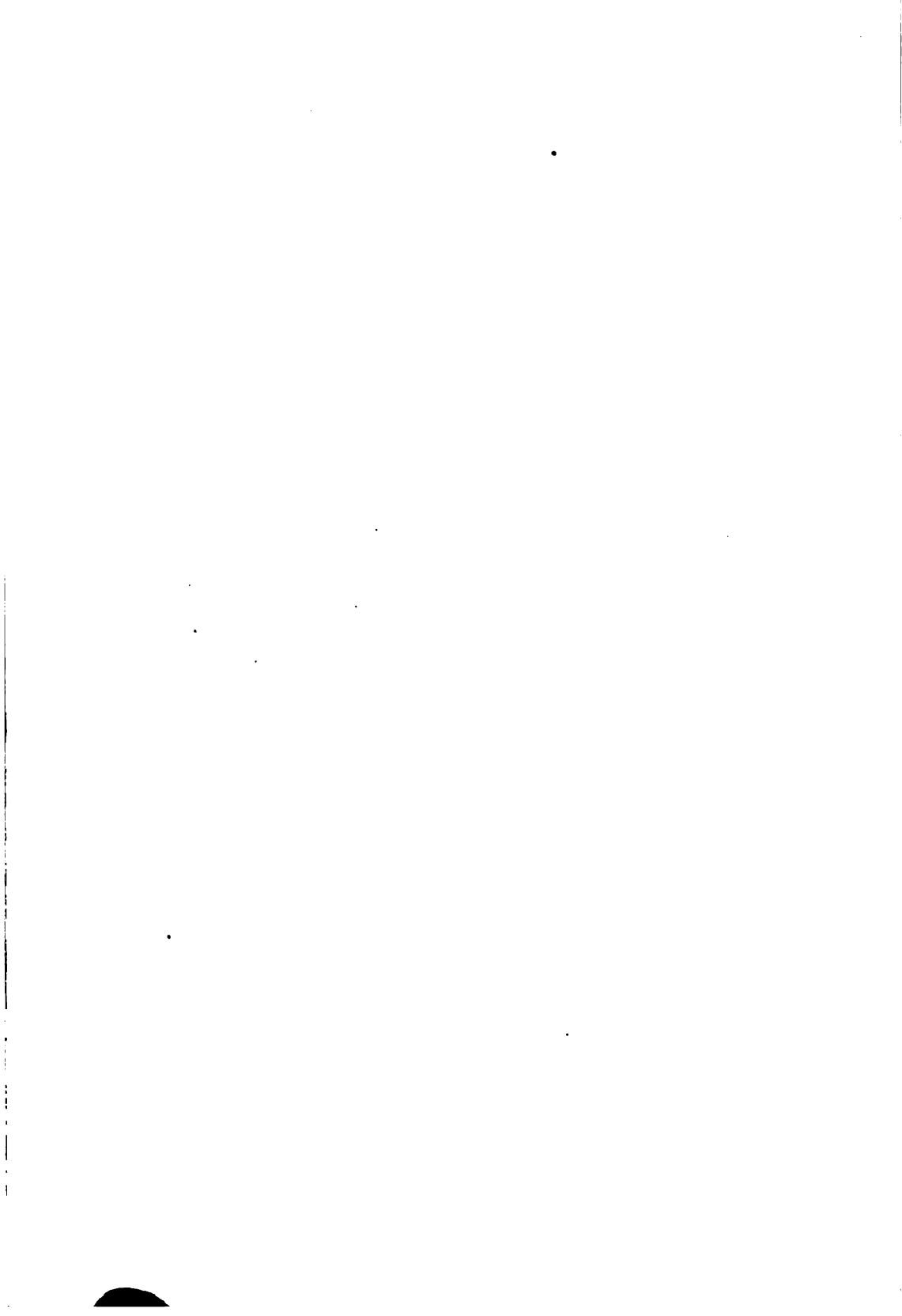
Pago Pago, on the island of Tutuila, in the Samoan group, is the only American possession south of the equator, and is used as a naval and coaling depot. The harbor is one of the finest in the Pacific; in fact, it is the only good harbor in the Samoan Islands. In addition to the island of Tutuila, the islets of the Manua group are also included in the American cession. Pago Pago is a completely landlocked harbor, and the stretch of water is so deep and so great in extent that it has thus been described by the former Chief Justice Chambers: "The harbor could hold the entire naval force of the United States, and is so perfectly arranged that only two vessels can enter at a time. The coaling station being enclosed by high mountains, cannot be reached by shells."

The native population is about 7,000. The garrison at times consists of about thirty officers, one hundred enlisted men and one hundred native Samoan soldiers, whose picturesque uniform of red turban, white singlet and blue breechcloth with red border, is very attractive.

Red-haired ladies are very popular at Pago. On Friday nights the natives fill their hair with lime, which they wash out on Saturday, and which gives it the reddish appearance. This is done for sanitary rather than ornamental purposes. Recently when a newly arrived red-haired lady awoke one morn-



AMERICAN NAVAL STATION, PAGO PAGO, TUTUILA, SAMOAN ISLANDS



ing and looked out her window, she observed a large number of native women waiting outside. Upon inquiring the cause, it seemed they wanted the recipe she used for dyeing her hair such a beautiful red. As I have mentioned, the lime turns the natives' hair a reddish brown.

So you may know times do not always hang heavily at sea. I may mention that the night before we reached Pago Pago (November 8th) the passengers gave the American naval officers and their wives, who were leaving us at Pago, a farewell banquet to mark the occasion. Wine was opened freely, speeches made, and a concert arranged. The Hon. W. J. Thynne, of Brisbane, proposed the toast of the evening: "The Officers of the United States Navy," in a speech that evoked general approval. Dr. E. Parker responded on behalf of the Navy. His speech was frequently cheered. Mrs. (Dr.) Parker responded on behalf of the ladies, in a very eloquent manner. The naval party expressed keen regret upon leaving, inasmuch as they could not attend the daily muster at eight bells in the smoking-room.

Secretary Josephus Daniels of the United States Navy has decreed that no wines, beers or liquors shall be allowed in the Navy or on land under control of his Department, so no soothing beverages are obtainable in Pago Pago, and the officers and enlisted men are teetotalers. Even ships approaching Pago must lock up their drinkables upon entering the three-mile limit. Should an officer come on board in port, and a passenger, by some accident, have a bottle in his stateroom and offer him a drink, the passenger narrowly escapes arrest; in fact, if anyone attempts to take a bottle ashore, he is sure of arrest, if caught. Note the result: Almost any officer in the Navy will now tell you that strong drink is a curse, and under these conditions they spend their lives on that beautiful isle in the Pacific, where the rainfall is from 178 to 208 inches, on the average nearly an inch per day from November to April.

A clever feat of salvage was performed at Tutuila, when the United States gunboat *Princeton* (about 1,000 tons) ran

upon an uncharted rock, the pinnacle of which, four feet long, drove into her bottom and broke off. Full steam was got up and she was headed for the shore, about six miles distant, which she reached in about fifty minutes. By the time she reached the harbor, the whole forward section of the ship was full of water up to the engine-room bulkhead. Had the bulkhead not held, she must have foundered before she reached the harbor. To the good fortune of the pinnacle breaking off and sticking in her hold must be attributed her safety. When she did reach the harbor, she was so far down by the head that at times her propellers were out of the water.

But our genial Captain Trask is the navigator who ought to put his experience at sea in book form. Speaking of good luck saving a ship, he describes what befell the sailing ship *Alex. Yates* (1,600 tons) twelve or fifteen years ago. She left the Galapagos Islands,* off the coast of Ecuador, for Chile, for orders. The first night out she struck an uncharted rock and backed off. The captain ordered all hands to the pumps, feeling he could keep her afloat for twenty-four hours. He provisioned his boats so as to be ready for any emergency. Luckily for him, the inrush of water suddenly diminished—so much so that half the crew were able to keep the water down. Observing this, Captain Dunham decided to continue his course to Valparaiso, which was his original destination. In due course he arrived there and proceeded to place his ship in dock. On examining the bottom, it was discovered that the cause of

* The Galapagos Islands lie 1,100 miles southwest of the Panama entrance to the Pacific. C. G. Hodges, in the *Sunset Magazine*, San Francisco, describes the group, and claims that they are the key or Western Gate of the Pacific end of the Panama Canal, and should be acquired by the United States. They are on the equator, 580 miles off the South American coast, and owned by the weak Republic of Ecuador, covering an area 300 by 200 miles. In naval parlance, Panama is covered by the Galapagos Islands, and their acquisition has long been urged by the American Naval authorities. At different times overtures have been made to Ecuador to secure possession of them, but without success. Mr. Hodges suggests joint occupation of the Archipelago, Ecuador reserving her commercial advantages, arranging with the United States to pledge her strong arm to maintain the islands inviolable.

the leak checking suddenly had been owing to a large fish getting sucked into the hole made in the hold when the ship first struck the rock, and contriving to be held there owing to the inrush of water, the dead fish having swollen and helped to fill the aperture.

A somewhat similar incident was experienced by Captain Dawson, of the *Ventura* (for thirty years in the Pacific trade), in the China Seas on board the *Chingsang*, a composite vessel of 800 tons. She was bound from Hong Kong to Liverpool, when she sprang a leak of sufficient volume to keep the pumps going. On inspection of her keel at Liverpool, the sword of a swordfish was found to have penetrated a teak plank three inches thick in her bottom. The piece of the plank containing the sword was cut out and placed in the Museum at Liverpool, England.

But I am digressing. To get back to Pago Pago, I may say that on the occasion to which I refer, the native band came on deck and played, and many of the couples danced the Tango and rag dances. Some wore shoes, while others danced bare-foot. It was Sunday, and many of the girls were stylishly attired in the dresses of their white sisters. The night was very hot and close, but they minded not the heat, so long as the music lasted. But they are no more fond of dancing than their white sisters, as I can remember many years ago on the steamer *Orient* in the Red Sea, in a very humid atmosphere, quite a commotion was created by the ladies insisting that round dances be continued, while the male passengers protested that square dances required exertion for that climate.

Upon another voyage, we reached Pago at daylight. Shortly after arrival, the natives swarmed on board and the ship presented an animated appearance—the dusky maidens clamoring to purchase the ship barber's stock of chocolates, cigarettes, notions, etc. They roamed about the ship in a light and cheerful mood, which amused some passengers and shocked others. Mr. and Mrs. A. Mees, of Java, were on board, and did not appreciate the levity of the Samoans, say-

ing it was in contrast to their native women, who would not dare to presume in this manner. But in Java the women are not *précis*, and even leave church-going for their men folk, who are Mohammedans.

As early as 1839, an exploring expedition from the United States, under command of Lieutenant Charles Wilkes, visited the Samoan group, and made surveys. Even then, they made no attempt to hoist the Stars and Stripes on any island in the South Pacific. It was in acquiring Pago Pago that the United States made the first departure from its policy of avoiding entanglements with foreign governments. In 1872 the commander of the United States warship *Narragansett* arrived at Tutuila, and secured from the Chief a right for the United States to control the harbor of Pago Pago. This was confirmed in 1878 by a treaty made with Chief Mamea, who visited the United States as ambassador of the existing government. Later, in 1872, Sternberger, described as an adventurer by the late Mr. Thomas Trood, British Vice-Consul, arrived in the yacht *Peerless*, settled in Pago, and enlisted the influence of the Chief, and set about establishing a government with himself as king. He acted in such a high-handed manner that the United States Consul Foster, in 1876, took advantage of the visit of the British warship *Barracouta* (Captain Stevens) to have him arrested, and deported to the United States. It is said that the English authorities disapproved of Captain Stevens' action in this step, together with his interference in native affairs, in which he endeavored to persuade some of the chiefs to accept Laupapa, thus causing the downfall of Chief Mamea. In a report on American Samoa by a previous governor, W. M. Crose, of the United States Navy, he states that the government of Sternberger was the best the Samoans ever had. Governor Crose added, however, that the State Department submitted Sternberger's case to Congress, which repudiated any agreement he may have made, as without authority.

There are no public lands in Tutuila; in fact, the United States only recently purchased forty acres for a naval station

and public school grounds at Pago Pago. The Mormons have a lease for forty years of the 360 acres they occupy.

The Manua group of islands are situated about seventy miles from Tutuila, and are four in number, viz.: Tau, Olosega, Ofu and Rose Island. Rose Island alone is uninhabited. Tau, Olosega and Ofu together have a population of 2,100 souls. Tau has an area of about fifty square miles. Olosega about twenty-five, and Ofu about forty.

The island of Ofu has the entire village of Ofu, about 408 souls. Olosega has the village of Olosega, 355 souls, and Sili, 50 souls. Tau has three villages, viz., Tau, 536 souls; Faleasau, 350, and Fitiuta, 396.

These islands were formerly ruled by a king known as Tui Manua. He was a most noble man, and kept his people free from the outside world. Indeed, Manua was always sufficient unto himself. Here the people regard themselves as better than the average Samoan, and speak the purest language. The Manuans are proud, and were the last to embrace the authority of the Americans after Tutuila had signed the instrument of transfer to the United States. These people have manifested a splendid spirit in reconstructing their villages, and in general dealing with the situation and the famine brought about by the hurricane of 1914.

Years ago an Englishman named Young was shipwrecked on these islands. He stayed there and was cared for by the natives. He grew to love the Manua people and finally married the king's daughter. His progeny still live in Manua, and now own large plantations and are otherwise well to do.

During recent years the United States Government has arranged to market the Tutuila copra crop, thereby securing best prices. A commission of one per cent. is charged, and a deduction of five per cent. for shrinkage is levied. The export reached \$50,000 in 1916. The natives are fortunate in having Governor Poyer as their guardian, for he watches the market keenly. Copra prices are generally quoted at so much per ton; but, when speaking to the governor at Pago, I notice he

had prices down to half a cent, remarking that copra was bringing nine and one-half cents per pound in San Francisco (1918).

A duty of fifteen per cent is charged on most commodities imported to Pago, the United States being given no preference.

Pago Pago attracted world-wide attention in 1917, when the first word of the fate of the famed German sea raider *See Adler* was flashed to the Allied Governments by the American Naval Station's wireless. For, on September 19, 1917, the island was astonished by the arrival in Pago Pago of four weary, hungry sailors in a lifeboat, commanded by Captain Halden Smith of the American schooner *R. C. Slade*. They were some of the survivors from ships sunk by the raider. They had sailed for ten days in a fourteen-foot boat from the Island of Mophea, 1,000 miles to the east, upon which the *See Adler* had been wrecked. Some of the *Slade's* crew had attempted to reach Tahiti in the same boat, but were compelled to return on account of unfavorable winds. The story of the *See Adler's* activities is too well known to need repeating. Sufficient to say that three days after the wreck of the ship, her commander, Count Felix Grof von Luckner, fitted out a 32-foot boat carrying two machine guns, rifles and bombs and with a crew of five, started north and went on a raiding cruise in an endeavor to hold up some passing vessel, capture her and turn her into a raider to continue the career ended by the *See Adler's* wreck. On September 22, 1917, he and his crew were captured off Levuka, Fiji.

When coming through the Samoan Islands in March, 1919, I found so much of interest had occurred since my last visit that I will add a few paragraphs describing incidents:

The night before we reached Pago Pago, Captain Trask picked up a wireless appeal for help from the steamer *Jacox*, bound from San Francisco to Sydney, several hundred miles distant, stating that she was on fire. Our course was altered to proceed to the rescue when we received another message stating that the fire was under control. The fire was caused by spontaneous combustion in some sulphur.

To show how labor troubles extend to remote islands in the Pacific, I might mention that the schooner *Charles Crocker*, copra laden from Tonga to San Francisco, ran into a hurricane and had to put into Pago under stress, her fore t' gallant mast and jibboom having been carried away. To add to the Captain's troubles, four of the crew mutinied and were sentenced to various imprisonments by the Governor of the island.

Some naval jackies, belonging to the station at Pago, were also in disgrace for sampling some gin at the Customs House, awaiting transshipment to Apia, with the result that they were discharged from the American Navy and their pay forfeited.

Dealing with international matters is as delicate a task as discussing missionaries in the Pacific, but at times it is due to the reader to refer to these subjects.

Strained relations existed between Governor Poyer (American Samoa) and Governor Logan, of Apia (British Samoa) which is the capital of Upolo and Savaii. The "Flu" was introduced into Apia by the steamer *Talune*, and the results have been appalling—out of a native population of 36,000 over 9,000 died, but the epidemic did not reach Pago Pago, Tutuila. Governor Poyer notified Apian authorities that no communication would be permitted unless arrivals observed quarantine regulations.

Colonel Logan, of the New Zealand forces, was acting as Governor of British (late German) Samoa, but had returned to New Zealand. The islanders claim that not sufficient precautions against "flu" were taken, and about January, 1919, they got up a petition protesting against his return to Samoa, requesting that the Samoan Islands be taken over by the United States as was preferred, or at least by the Colonial Office, rejecting most emphatically administration by New Zealand. This petition was subsequently withdrawn. Colonel R. W. Tate, C.B.E., was appointed to succeed Colonel Logan as Governor.

They also claim that the American authorities have kept the rhinoceros beetle, which attacks the cocoanut groves, out of Tutuila plantations, while it is very prevalent in Upolo and Savaii.

Few people are aware that treasure is hidden in Pago Pago. In August, 1914, the German steamer *Elsass* dashed out of Sydney Harbor, tearing away piles enclosing public baths. She sailed direct to Pago Pago, where she was interned till America entered the war. She was then seized and towed to Honolulu, having wilfully crippled her own engines.

The American authorities later on learned that she had on board \$12,000,000 in British gold, when she left Sydney.

Upon the signing of the armistice, orders were received from Washington to seize all German property in American Samoa. Search was made for the gold supposed to be in the custody of the German firm, but only \$15,000 were found. An American naval officer at Pago Pago, not being satisfied with this, conceived the idea of getting some natives to prod with iron rods any soft spots of earth, with the result that they found several large terra cotta pipes filled with gold. The officer was not at liberty to disclose to my informant the amount secured, but he said he found a "barrel of gold." It is supposed the German authorities shipped some of the gold away during the time of internment.

Some of the cargo from the *Elsass* was only delivered to the Sydney consignees four years later.



BOTANICAL GARDEN, SUVA, FIJI



MAKAURBO ISLAND, SOLOMON GROUP



AUCKLAND HARBOR FRONT, NEW ZEALAND



**MAORIS COOKING AND WASHING IN NATURAL
SPRINGS, NEW ZEALAND**

FIJI

THE CANNIBAL ISLES—MISSIONARIES—AMERICAN CLAIM

ONE would never suspect that the happy and hospitable natives of Fiji were the immediate descendants of a race which until recently was dreaded throughout the Pacific, on account of its systematic practice of cannibalism and other horrible rites. The most noticeable characteristics of the Fijian of to-day is his merry, happy disposition. Yet, until the missionaries commenced their labors in 1832 and for some years afterward, the Fijians had the reputation, justly earned, of being the most atrocious, bloodthirsty cannibals on earth. Every sort of horrible crime—cannibalism, infanticide and human sacrifice—was practiced, partly out of pure ferocity, partly as a religious rite. In reading the early history of Fiji, one sickens at the prominence given to the atrocious acts of cannibalism—the fattening, the clubbing and the roasting of hecatombs of human beings.

It was in such a hell on earth that the first missionaries trusted their lives, and the change that has been effected through them is wonderful. Christianity was first made known to the Fijians of the eastern group by the reports of the Tongans from the Friendly Islands, where the Wesleyans already had a thriving mission. In 1854 the crowning work of the Wesleyans' mission was accomplished in gaining over King Cabobau (or Thakombau, as it is pronounced and frequently spelled), and the support of the leading chiefs having been obtained, the acceptance of Christianity became a political necessity to great numbers; none but the most powerful tribes daring to refuse.

On this subject, Professor Cary, Princeton University, who joined our ship at Suva, states:

"King Cabobau was threatened with being killed and eaten by another chief, Rawa, and to save his own neck put himself under the protection of the missionaries from whom he received rifles and ammunition, as well as assistance in war. The followers of Cabobau were told by him that unless they embraced Christianity, they would be clubbed and kai kai'ed (eaten), so as they were accustomed to obey the orders of the great chief in other things, they of course obeyed in this case; and fifteen hundred of them were baptized in a single day, 'when the spirit of the Lord descended upon the place.'"

Nothing but unstinted praise can be given to the band of missionaries who carried the gospel to Fiji, and in doing so passed through the most deadly perils. Only one, however, met a violent death, and this was the Rev. Mr. Baker, who was killed and eaten by the wild tribes in the interior. At present the natives are all professed Christians and mission work is plain sailing. The Wesleyan and Catholic missionaries have done much to uplift the Fijians.

"The Catholic Church has good reason to be proud of the devoted work of the priests of the Marist order in Fiji. I have often heard the methods of missionaries criticised by traders and planters, but I have never heard the roughest trader say an ill word against the Marists." I may say here in passing that the traders are a much maligned class; for, though there are some rough customers among them, the great majority are as fair and square business men as can be found in any community. The conditions under which early traders prosecuted their labors must be taken into consideration. Captain Allen, who owns plantations in the Samoan and Ellice groups, assures me that in the early days the trader while passing tobacco, tools, cloth and other articles over the side of his boat with the left hand, often had to hold a revolver in his right, to guard against the treachery of the natives.

Reverting to the Marists, they are supported by the French

Society for the Propagation of the Faith, receiving a pittance of two hundred dollars a year, and remain at their posts, no matter how unhealthy or how uncongenial may be the locality for the term of their natural lives.

In according this praise to the Marist priests, I wish to refer also to the credit that is undoubtedly due to the Protestant missionaries. I have often had missionaries as traveling companions, and good company they are, as a rule. Bishop Vidal, one of the most energetic of all the Catholic missionaries, is much admired and esteemed by all who know him. Like the other Catholic missionaries in Fiji, he is a Frenchman, and came out to the South Seas as far back as 1873. His influence in Fiji has been very great, and a lasting monument to his energy is to be seen in the beautiful cathedral that has been built in Suva. Another prelate with whom I have traveled is Dr. Twitchell, the Anglican Bishop of Polynesia, whose headquarters are at Suva. He is a fine fellow, who can tell a good yarn in the smoking-room, and is popular with all classes.

Residents who have lived in the Fiji group for many years assure me that the labors of the missionaries among the natives have been attended with good results. When traveling by night, whether on land or water, far back from the villages, one can hear, wafted across the hills and streams, hymns being sung in the cabin home of these Fijian Islanders.

So much for the Fijians as they are, and for the changes that have been wrought by the missionaries. There are more than two hundred islands, great and small, in the Fiji group; but this number includes many that are mere rocks with little vegetation and no inhabitants. The largest island on which Suva, the capital, is situated is Viti Levu, with a surface of 4,112 square miles. Next in point of size is Vanua Levu, with an area of 2,432 square miles. Though more than two centuries have elapsed since the first discovery of Fiji by Tasman, comparatively little was known of the country until the visit of the United States exploring expedition of 1840, of which

Commander Wilkes, of the American Navy, wrote an elaborate and highly interesting account. Captain Cook, on his second voyage, sighted some of the islands, and so did Bligh in his compulsory boat voyage after the mutiny of the *Bounty*, but a landing was not attempted. The earliest European settlers were escaped convicts from Botany Bay, who preferred taking their chance among cannibals to facing again the miseries of convict life in New South Wales.

Sometimes sailors from whalers, which now began to call in for provisions, remained ashore with the natives. Jack Tar found a life of luxurious ease among them, more to his liking than the hardships of interminable voyages in ships in which he was in those days very badly treated. These men were received like princes by the native chiefs and were provided with every luxury that the tropics afford, in return for a little instruction in the use of firearms and occasional assistance in native wars. One of the earliest white inhabitants, called Savage, abandoned his clothes, painted himself, and became a thorough Fijian, often leading a tribe to battle. Heading the column with his single flintlock musket, which was considered equivalent to an army, he changed the fate of dynasties by establishing the supremacy of the Nibau chiefs.

As far back as 1835 some traders gained a foothold on the beach at Levuka and a settlement was established. The community led a free and independent life, every man being a law unto himself and doing that which seemed good in his own eyes. Many gold-seekers on their way from California to Australia, in the days of the gold rush, called in at Fiji, and a few of these, charmed with the freedom and lawlessness of the country, returned to it when it was no longer easy to make rapid fortunes in Australia.

The leading chiefs offered the islands to Great Britain in 1861. The Imperial authorities refused to take them over then, but did so later. The circumstances which led Cabobau

and the other chiefs to offer the islands to Great Britain were as follows:

On July 4, 1849, while the late Mr. J. B. Williams, then United States Consul, was celebrating the national anniversary by the firing of cannon and letting off of squibs on the island of Nukulau, his house took fire and was burned to the ground. A crowd of natives collected, and in the confusion his property was pillaged. On the arrival of the next American man-of-war, he claimed compensation for damages to the extent of \$5,000. At this time there were about fifty whites residing at Levuka. The chief of this town was on friendly terms with Cabobau, and was frequently allied with him in war. In 1853 a boat belonging to some of the whites living at Levuka was captured and pillaged by natives at Malaki. The whites made a raid on Malaki and killed a number of the tribesmen. After this, the natives made an attack on Levuka and destroyed property. Complaint was made by the American citizens of the losses they had sustained and Cabobau was saddled with the whole responsibility.

After some preliminary investigations on the part of the United States Government, Commander Boutwell was sent to Fiji in 1855 to inquire into the justice of the American claims in a fair and impartial spirit. The result was that an award of \$30,000 was made against Cabobau. The award was afterward increased to \$45,000, \$15,000 having been added, as Commander Boutwell said, "On account of the interference of the English missionaries." The Williams claim, originally \$5,000, was finally set down at \$18,331, and the award stood thus: To J. B. Williams, \$18,331; Chamberlain & Co., \$7,300; David Whippy, \$6,000; owners of bark *Elizabeth*, \$1,000; owners of the brig *Tom Pickering*, \$2,800; Thomas Ryder, \$1,500; Wilkinson Bros., \$4,000; Shallack & McComber, \$2,600.

Though Cabobau disclaimed personal responsibility, he signed an acknowledgment on board an American man-of-war. English writers say he was terrified into doing so, and, ac-

knowledging the justice of the claims, he promised to pay the amount within two years. Being quite unable to satisfy the claims, Cabobau, in 1858, offered to cede the islands to Great Britain, on condition that he should retain the rank and title of King of Fiji, and that in consideration of his conveying two hundred thousand acres of land, the American debt should be paid for him. Owing to the unsettled condition of things in Europe and more especially because of the difficulty Great Britain was then experiencing in New Zealand, the offer of Cabobau and the other chiefs was not accepted by Earl Russell, who was then at the head of affairs in England. The Government of New South Wales strongly supported the annexation, and Captain Towns, a patriotic citizen of Sydney, offered, in order to remove any obstacles in the way of the cession, a check for the amount claimed by the United States.

In 1867 the debt owing to the American Government was still unpaid, with the exception of a small amount, equal to £287 (\$1,400) British currency. The United States authorities were in that year moved to dispatch another man-of-war to the group. The United States ship of war, the *Tuscarora*, upon its arrival in Fiji, obtained from Cabobau a mortgage over the large area of land, as security.

At this juncture there arrived representatives of a syndicate, the Polynesian Company, formed in Melbourne to acquire land in the group. In their application Cabobau saw a way out of the difficulty. He agreed to grant the fee simple of two hundred thousand acres of land conditionally upon the American debt being paid. An agreement was at once drawn up on board the steamship *Alboon* on May 23, 1868, and Cabobau's debt was liquidated. In 1871 the white settlers established a constitutional government for the kingdom of Fiji, under King Cabobau. This was not a success. It enslaved the native population, by levying a heavy poll tax and then forced the natives to work out their tax for the benefit of the planters, who paid it. It took two hundred and twenty-five days' work each year to pay the tax and in 1874 Great

Britain accepted sovereignty of the group, Sir Arthur Gordon (afterward Lord Stanmore) being the first governor. The next governor was Sir George Des Voeux, with whom I made a very pleasant voyage across the Pacific in the *Zealandia* in 1878.

SUVA—OLD CUSTOMS—THE MEASLES EPIDEMIC—
COTTON

The larger islands of the Fiji group are all mountainous, rising to heights of over 4,000 feet. Nearly all are clothed from base to summit in a mantle of green, while the valleys are covered with magnificent tropical flora, rich and abundant in variety. It is an exceedingly well-watered country. The Rewa River, which drains the eastern part of the Viti Levu, is navigable for vessels of light draught for more than fifty miles. There are half a dozen other large rivers, and besides these, almost every valley in the group has its brawling stream fed from an inexhaustible spring.

Suva, the capital, is a very picturesque place. It is not an imposing city, considered as a metropolis, but it is pretty in its own scattered way, and delightfully situated on a hill that slopes down to one of the most beautiful of bays. In the distant background rises an amphitheater of bold mountains, less soft in their outlines, and in a way less beautiful, than the Samoan ranges, but grander and more impressive. The gardens on the hills at the back of Suva are usually aflame with scarlet hibiscus. There is a plenteous rainfall—it is recorded that twenty-six inches once fell in Suva in a single day! so that there is no lack of verdure and luxuriant vegetation. The breadfruit tree, bananas, pineapples, yams, mummy apples and sago palms, are all to be seen growing either within the boundaries of the town or within a short drive. Along "the beach" at Suva, or, to adopt its more dignified name, the Victoria Parade, surges an ever-interesting flow of human life.

The most striking feature of all among the passers-by is

the Fijian native, with his magnificent mop of hair and his white "sulu" or kilt. Few of the Fijians care for hard manual labor, but the dignified and not too onerous post of policeman suits them admirably, and there is no lack of candidates for the office. Natives from the Solomon and other islands are mostly engaged about the wharves and shipping, or as waiters in the hotels, but the bulk of the labor in Fiji is furnished by Indian coolies. On one trip by the *Niagara*, we took in a large cargo of sugar at Suva. The loading went on night and day. Natives perform the ordinary labor, for which they are paid two shillings (48 cents) a day and board, for which a sugar company pays one shilling a day. For special work like loading, natives would receive five dollars for twenty-four hours.

The Union Steamship Company has erected a palatial hotel at Suva. The Governor of Fiji receives a salary of \$15,000 a year, and, in addition, he is paid another \$5,000 as commissioner of the Western Pacific. Besides these salaries, he is supplied with a beautiful home.

In conversation with a member of the Civil Service, he told me they got four and one-half months' holiday every two years. With a little persuasion, the authorities will extend the leave two months. If a civil servant wishes to visit England, he is allowed three hundred dollars expenses.

Land values are high in Suva. The Union Steamship Company paid one hundred and thirty dollars a foot for some front street property for new offices in 1915. Some syndicate recently paid one hundred and eighty dollars a foot for land in the vicinity of the new wharf.

We hired a taxi to take five of us to the Rewa River, twelve miles distant over a fairly good road. On the opposite side of the river is the Colonial Sugar Company's mill. The beautiful rich soil over the route is very noticeable, but crops are sadly neglected. Indian huts are dotted on both sides of the road, but there is very little cultivation. At many places one sees the Indian families grinding rice with an antiquated square log, which is operated by pumping it up and down.

Sugar-cane plantations abound along the river. We saw a dozen horses, some sheep and one pair of oxen. There were Indians everywhere, arms and ankles being covered with bracelets and their noses full of rings. As the native Fijians will not work except spasmodically, sugar growers are compelled to import East Indians under contract. These people save and scrape, spending nothing in the islands, except for food and trinkets.

In March, 1913, five hundred left for their homes in India, and took with them \$54,000 in gold, \$20,450 in drafts and \$13,315 worth of jewelry. In June, 1914, three hundred and thirty-nine Indians, of whom two hundred and twenty-nine were men, returned to India, taking with them \$33,290 in gold, \$2,145 in bank drafts, and \$4,750 in jewelry. It is stated that they object to taking drafts in India, because in cashing them, the banks there pay them in silver rupees, which are liable to fluctuate.

There are now about ninety thousand East Indians in the Fiji Islands, of whom about one-third are women. Life is held very cheaply among them, and murders are frequent, the cause usually being traceable to jealousy. A woman will pretend affection for a man until she gets his savings, which he carries in a bag attached to a string around his neck. Then she seeks fresh victims. In June, 1917, nine Indians were sentenced to death for capital offenses.

I cabled from Suva to Sydney on July 6th, which was July 5th in the United States and Canada. Owing to the difference in time I got a reply twenty-five minutes before I sent it! The cable happened to be clear between Suva and Sydney, as there were very few messages coming through from America, the people not having recovered from the Fourth-of-July effects.

Either at Suva or some other center of native life, the visitor should contrive to see the native dance of the Fijians, or "meke," as it is called. The "meke" is really the Fijians' one fine art. It stands for him as opera and drama, and the best artists are in considerable repute. When an important

meke is coming off—to celebrate, for instance, the arrival of a great chief—the preparations and rehearsals go on for a considerable time. Most of the dances of the Fijians are dramatic in character, representing incidents in war or some striking fact in nature; such as the dashing of surf on the reef, or the flight of the flying fox. Closely associated with the dancing of the Fijians is their drinking of kava, which is made the occasion of much ceremony, and which I have described elsewhere.

In the old days, the Fijians were exceedingly cruel to the aged and infirm. Bald heads and gray hairs excited contempt instead of respect, and therefore when likely to become troublesome, the aged begged to be strangled. Burying alive was the means generally used for dispatching old people.

According to the religion of the Fijians, as a man was in this world at the time of his death, so would he be throughout his stay in the next, consequently it was in every way desirable that anyone should die in full possession of his powers, and for this reason, it was customary for a man when he had reached an age of about forty years to announce that he was dead, when he would be buried by his friends with all proper ceremonies. His wives, or at least the chief wives, would be strangled, so that they might accompany him to "Heaven," to minister to him as they had here. Various material things needed on the journey or in the next world were placed on or in the grave, while his remaining wives made the most unseemingly remarks about him, to drive his ghost away. Nowadays, I am glad to say, the Fijians treat their old, feeble and toothless parents with affection and tenderness.

Another of the old customs was polygamy. Every man was allowed to have as many wives as he could maintain, but only the highest chiefs could afford to keep more than one wife. Very few middle-class men were married before reaching the age of twenty-five. To the women, the plurality of wives was a source of female degradation and domestic misery. The first wife was the mistress of the family, the others, whom

she was supposed to treat like younger sisters, were called by a name corresponding to that of auxiliary wives; and a respectable female, in becoming a secondary wife, was entitled to a domestic establishment of her own. But in practice often enough Dame Nature, in her old-fashioned way, overrode these beneficent fashionings, and the nasty little ways of the ladies, stimulated by jealousy, placed bitten-off noses, rent ears and scratches among the smaller evils of polygamy.

Under the system, many men, of course, were left without wives. Some of these had to court the favor of a chief to secure the loan of a wife, in compensation for which the man so obliged became the willing instrument of villainous deeds at the instigation of his wife's master. Others willingly engaged in wars in the hope of terminating their forced celibacy by securing a female prize. Often, to encourage warriors to fight, two or three women were given to the army. For many years polygamy has been abandoned and the domestic life of the Fijian of to-day is now quite exemplary.

The Fijians are slowly decreasing in numbers. Among the reasons advanced for this are the comparatively weak maternal feeling of Fijian women (the infant mortality being very high), the introduction of new diseases, such as measles, whooping-cough, influenza, etc., with which the natives cannot cope, and the disappearance of many of their old social customs.

Fiji affords a striking example of the direful results to be apprehended from exposing a race to a new disease, even though such a malady is comparatively harmless in respect to those who have become in the course of ages accustomed to its effects.

Measles were first brought into the group by H. M. S. *Dido*, in 1875, and in a short time forty thousand of the natives were believed to have perished.

The circumstances are interesting enough to narrate at some length. King Cabobau and his sons and a befitting retinue of chiefs returned from Sydney on the *Dido*, having

visited Sir Hercules Robinson, then Governor of New South Wales. An epidemic of measles prevailed in Sydney at the time, and shortly before leaving, the king's younger sons took the complaint in a mild form, as did also two of their attendants. On the voyage home the king became slightly unwell—so slightly that quarantining was considered unnecessary—and upon approaching Levuka, one of his sons jumped into the sea and swam ashore. Kindred and subjects crowded from all parts of the islands to welcome the king and, according to custom, sniffed his hands or his face, thereby inhaling the unsuspected poison. A few days later a great gathering of natives was held on the Rewa River, at which several chiefs from Levuka, who had already caught the measles without being as yet unwell, attended. Some authorities claim the disease was really bronchitis, not measles.

In the South Seas it appears the measles, which some consider a simple and infantile complaint, invariably assumes a character more like the plague, when first introduced into any of the groups. Consequently, the first epidemic of any sort that had visited Fiji spread all over the group with disastrous results. Whole villages were stricken down, young and old alike lay dead and dying. In the king's own town of Bau, all were ill at once. On one island alone the population was reduced from twenty thousand to four thousand. The handful of whites did their utmost to help, and gave all the medicine they possessed. Isolation of the sufferers was impossible. They could not be prevented from rushing to the nearest water to cool their fever. The rash was then thrown in, and congestion of the lungs and dysentery of the most malignant type were brought on in thousands of cases. At last in many districts the living were unable to bury the dead and there was good cause to dread lest the worse pestilence in the form of typhus should be engendered by the putrefaction of the air.

Since those days, events have been dated from the "time of the measles." If you ask any one his age, he is almost certain to say: "I was so high, at the time of the measles."

The Government of Fiji, warned by that fearful epidemic, has introduced the strictest quarantine laws.

Fijians practiced massage before the advent of the white man. In cases of ailments they apply, with effective results, medicines obtained from herbs.

The American Civil War was responsible for a large addition to the white population of Fiji. The suspension of the cotton industry in the Southern States of America forced European countries to look for other fields for the growth of the material. Cotton was everywhere in demand and the prices were exceedingly high. The tropical climate and the volcanic soil of Fiji were deemed to be almost ideal for the production of cotton, and for a brief period its cultivation was extensively carried on and with a good deal of success. Destruction of plantations by hurricanes and the cessation of hostilities in the United States were followed by such a reaction in the cotton markets of the world that the industry in Fiji was crippled beyond all hope of recovery. The cotton planters proved themselves men of courage and resource, and some of them, turning their attention to other products, quite regained their lost fortunes, though it must be admitted that others suffered losses from which they never recovered. The days of cotton in Fiji were days of romance. It is a pity that so many golden dreams ended so sadly.

I have already referred to the ninety thousand East Indians in the Fiji Islands. The native Fijian population is about eighty thousand and in addition there are forty thousand whites and ten thousand, made up of Samoans, Solomon Islanders, Chinese and Japanese.

For their share in the World War, the islanders deserve great credit. Probably no part of the British Empire can show a better record of self-sacrificing patriotism.

THE CECILE CASE

A sensational case identified with the life of Fiji, extending across the seas to France, is that of Lieutenant Gustav

Cecile, a Frenchman freed from New Caledonia penal settlement, wrongly convicted and deported for wrongdoing, who settled in Fiji upon his release. At Suva, Cecile met Father Rougier, a fellow-countryman, who took him to the mission station at Nailailili, twenty miles distant.

Learning that Cecile was entitled to a fortune left in France, the missionary took action on the lieutenant's behalf and won about \$175,000, setting aside enough money to keep Cecile comfortably. The Bishop of the Fiji Islands, however, called upon the priest to explain why he had accepted the bulk of this fortune without investigating the condition of Cecile's relatives in France. Father Rougier fled Suva, returning some months later, to be deprived by Bishop Videl, of all office in the Church.

Lieutenant Cecile's brother, a banker, arrived with his family from France, on a visit to Fiji. They stayed a year and took Kathrina, native wife of Cecile, the missionary, and his native servant Louis, to France. Later the three returned to Suva.

Evidence by a commission recently has been taken in Fiji for the French courts, arising out of the Cecile-Rougier case, in which an agent in France named Pavey, who had assisted in winning the inheritance, had demanded an enormous commission for his work. The relatives of Cecile, who had died, succeeded through this new action in getting a refund of 300,000 francs. Rougier next claimed some of this money for Kathrina, the relatives contesting the legality of the marriage to Cecile. Kathrina gave her evidence in fluent French. The validity of the marriage was proved, and Kathrina is now living a quiet life on the Rewa River, near Suva.

Some time after, Rougier left for America; and when war broke out, went to France, where the Legion of Honor was bestowed upon him for his labors and generosity in connection with Red Cross work. He has since purchased Christmas Island from Lever Brothers for \$50,000, where he is cultivating a cocoanut plantation.

NEW ZEALAND

ACCORDING to native tradition, the ancestors of the Maori race reached New Zealand many ages ago from a distant land called Hawaiki. Where Hawaiki was, tradition does not say, but that it lay somewhere in the Pacific is certain from the close affinity of the Maori language to that of the other islands occupied by the Polynesians from Rotumah to Easter Island and New Zealand to Hawaii. Possibly it was Hawaii, the language and traditions of the natives of that group having much in common with those of New Zealand. When a company of Hawaiian singers, under the conductorship of George Kai, toured New Zealand several years ago, his troupe received a great welcome from the Maoris, with whom they were able to converse in their native tongue.

It is one hundred and fifty years since Captain Cook first landed on the shores of New Zealand. Since that time the face of the country has changed more than Cook would have conceived possible in his wildest visions of colonization and settlement. The formidable native population which swarmed along the shores wherever he attempted to land, has dwindled down to a comparatively insignificant remnant of about forty thousand, while the white population numbers over a million. Except in the vastnesses of the King county there is no considerable area of agriculture or pastoral land that has not its field of corn, or its thousands of cattle and sheep. Stations, townships and cities have sprung up where fifty or sixty years ago nothing was to be seen except tussock, fern and swamp land, or stretches of trackless bush. To-day New Zealand can

hold its own among British possessions which are considerably older.

The scenery of South Island differs in character from that of North Island. In the latter, volcanic forces have been stronger and much more recent in their action, and, as a consequence, North Island is the home of boiling springs and other forms of thermal activity. These are very remarkable and have chiefly attracted the attention of travelers who have visited New Zealand. Yet South Island possesses attractions not inferior in degree, if somewhat different in kind. The lakes of South Island are called the "cold lakes," to distinguish them from the "hot lakes" of North Island.

It is of North Island that I shall speak chiefly, because that is the part of New Zealand with which I am most familiar. Auckland is built along the southern harbor, which forms the western extremity of the island—spangled Hauraki Gulf. The site of the city, flanked by suburbs, rises in a long and gradual slope to the base of Mount Eden, a slumbering old volcano from whose easily scaled summit one obtains a most glorious panoramic view. Auckland's surroundings make her one of the loveliest of cities. Nature has lavishly endowed it with her choicest gifts. It is situated on a narrow neck of land, and a canal of about seven miles across this neck from Tamaki to Onehunga would shorten the distance between Panama and Sydney by several hundred miles. It is indented by bays, pierced by estuaries, interspersed with volcanic hills and mounts; and the gulf outside its portals, fringed with sunny little islands, is a dream of delight. From the sea on either coast a cooling breeze is ever present, to temper the ardor of the sun, and the climate therefore is mild and equable.

Auckland was the New Zealand port visited by the American fleet, on its round-the-world tour, some years ago, and a right good time they had. The city was beautifully decorated, but what impressed Admiral Sperry and Captain (now Vice-Admiral) Grant, chief of staff, most was the floral decoration of the word "Welcome" over an undertaker's es-

tablishment, to which their attention was drawn by Sir Joseph Ward, who, with Lady Ward, accompanied them in the first carriage.

The show place of North Island is Rotorua, about two hundred miles from Auckland, where the Government has spent \$500,000 in improvements and buildings. There are to be found the only geysers in the British Empire. Other geysers are to be found in the Yellowstone Park, in Iceland and Thibet. Of those in Thibet we know very little, but geologists tell us that the geysers of the States of Wyoming and Idaho are the oldest in the world; that those of New Zealand are the next, in point of age; and that those of Iceland are the least ancient.

Whakarewarewa, about two miles from Rotorua, is a real center of the "wonderland." The first spot to attract attention is the cooking pool, a circular crater, full of boiling transparent water, which the Maoris say is "as deep and unfathomable as a woman's heart." Proceeding, the visitor reaches a running stream and two large pools of warm water which are generally alive with Maori men, women and children, the latter squatting at ease on the brink, ready to dive for coins. Passing on by numerous bubbling mud pots and clouds of sulphurous steam, the traveler approaches the center of this scene of wild thermal activity, and, surmounting a gentle rise, reaches the Geyser Plateau. Here are situated the wonderfully shaped Brain Pot; the Wairoa Geyser, which throws up a perpendicular column of water one hundred and fifty feet; the immense Pohutu Geyser, and innumerable other geysers and quaint wonders.

Many of the hot springs have powerful curative effects, and invalids from all parts of the world visit them. They vary in composition and strength from those strong enough to dissolve galvanized iron to the mildest diuretic, and give, therefore, a fine field for the treatment of diseases. The waters are said to be beneficial in cases of rheumatism, gout, sciatica, lumbago, kidney complaints, and many skin diseases.

I can say for myself that the springs cured me of rheumatism in three weeks, and many other visitors have derived similar benefits. A number of those I met had come there to get their systems purged of alcoholic and other poisons, and when they renounced drink, became new men. Unfortunately, in some cases, the patients felt so happy upon receiving their health, that they could not resist the temptation of having a good time, with the result that soon they spoiled all the benefits they received from the baths, and from drinking the mineral waters. The Waimangu Geyser was the greatest wonder of the Hot Lakes district. When not active it resembled an enormous boiling pit, some acres in extent, which at irregular intervals throws up, to a height of one hundred to one hundred and fifty feet, immense columns of water and stones.

A visit to the ruins of Wairoa Village, destroyed by the eruption of Tarawera Volcano in 1886, will repay the visitor. This eruption killed seven Europeans and over a hundred Maoris, and altered the face of nature for several hundred square miles. The most awful fate was that of eight Maoris who were camped on the little island of Puwai in Lake Rotomahana. This island collapsed in the waters of the lake when the earthquake rift dropped the waters of Rotomahana into the superheated depths below, and the next moment the fragments of Puwai and the eight sleeping Maoris were hurled thousands of feet into the lightning-split sky, and rained over the land in the destroying showers of boiling mud.

I shall not forget my trip across Lake Rotomahana. A great cliff on our right was steaming from water foot to summit. Thousands of blowholes and boiling jets sent their white clouds into the air. Springs of boiling water lined the shore. As we moved away from the shore and got into one of the hot spots, the water under our boat's keel began to simmer and a hissing, indescribable, broke on our ears. Then we would get into a body of cool water, and a little farther on into another seething place of boil and bubble. Even the most blasé of globe trotters among us burst into expressions of astonish-

ment at the many manifestations of weird phenomena which abounded everywhere. The whole district is perhaps the most absorbingly interesting, in its way, in the world.

The Maoris, whose strange habits and customs add greatly to the interest of a visit to Rotorua, are a merry, happy-go-lucky people, and their cheery salutation "Tena-Koe" (that's you) soon becomes familiar to visitors, as the Maori girls are not sticklers in the matter of introduction. The shallow pools, framed in by slabs and stones and heated by the overflow from some contiguous hot springs, are used by the Maori "wahines" (women) for cooking and laundry purposes. The steam issuing from the numerous fissures is also utilized by the Maoris for domestic purposes, a steam oven or digester being extemporized by placing a bottomless box over the steam-jet and covering the whole with a sack or cloth.

The Maori strongholds were called "pahs," and were fortified stockades. I saw a very good one near Rotorua. Some "pahs" were very extensive; as many as one thousand or two thousand fighting men being in them. As Christianity spread, wars ceased and the fortified "pahs" fell into disuse. The Maoris now dwell at peace in their "whares," as their houses are called, without wall or fence to protect them against the white pakehas. The change from barbarism to Christianity was rapid and complete. From a people addicted to cannibalism and to the worst passions, they became in a few years an intelligent and superior race. On their return home, however, some of the girls who have been sent to boarding schools, after a time resume the tribal dress and habits, but this applies in a measure to aboriginals of all countries.

Tattooing, at which the Maoris were adepts, is becoming a lost art. I have, however, often come across old Maoris with faces like plaques of carved wood. These old Maoris are unpleasantly fond of shaking hands with the white strangers whom they term pakehas and are more affable and courteous than the younger men of the tribe, who are often shy, and

reserved, and sometimes sullen. Most of those lack-luster and passive old fellows who sit like heathen idols around the ancient "pahs" will nod their mahogany heads on your approach and proceed to chatter to you as if you understood all they said.

Not the least interesting features of a Maori village are the youths and children. They are full of fun, as indeed are their elders, and chase and tease each other good-naturedly with much shouting and laughter.

The "Tangi," still observed among the Maoris, is a great lamentation on the death of a chief or individual. Women used to lacerate themselves with mussel shells until they became covered with blood. During the touring season, from November to March, the natives give entertainments of dancing and singing in the evening. Generally a dozen or more take part in the "haka," the native dance, which is not unlike the "meke" of the Fijians, and the degrees of modesty vary according to the character of the audiences.

Most of the Maoris earn a living by cultivating the land, cutting flax, digging kauri gum, or working at flax mills. The foods they appear to relish most are eels and potatoes. As a rule, the men dress as the whites do. The women are fond of bright colors, particularly red shawls. The wealthy natives live in good houses, and some keep excellent buggies, horses and motor cars.

A great many stories have been told about Pelorous Jack, the famous porpoise that used to pilot steamers through the French pass, from Wellington to Nelson. Jack has not been seen since 1913, and his death is presumed. He was of the dolphin variety. Some years ago, unthinking people used to shoot at the creature as it swam in front of the steamers. So, to protect it, the Government passed a measure through Parliament, rendering any person who shot it liable to a penalty of \$500. It was the only porpoise in the world protected by law. There was one steamer, the *Penguin*, wrecked several years ago, that the porpoise would not have anything to do

with, and it is generally supposed the reason was that on one occasion he had gotten too close to the hull, and received a bump.

Pelorous Jack was, of course, a great attraction to tourists. It is popularly supposed that the porpoise, which originally reached the French Pass with a school, was left behind, and becoming acclimatized, gave up the migratory habits of his ancestors. Sailors all over the world knew of Pelorous Jack and disbelieved the story about him till they saw him for themselves. Many a fo'castle fight has taken place as a result of arguments over Jack's habits.

A sailor told me a curious adventure he had with Pelorous Jack. He was sailing in a brig that had been trading in the islands, and had come to New Zealand. They reached the channel which Pelorous Jack frequented, and, there being no tug, decided to beat up "on their own." Pelorous Jack swam around the vessel and then started off ahead, in the center of the channel. When the brig headed on shore, Jack swam back and headed for mid-channel again. Finding his lead still disregarded, Jack began to get very excited and lashed the water, plunging one way and then another. Ultimately, Jack, who had been accustomed to steamers, gave up and left to her fate this unaccountable ship that would not keep in the proper channel. Maybe his heart was broken and the brig's behavior was the cause of Jack's death!

While on the subject of fish, I must not omit a reference to the catching of whales in nets at Whangamumu. The whales as they come to the coast are in the habit of passing through a very narrow passage, with the object, it is believed, of scraping the barnacles off their back by rubbing their bodies against the rocks. The whalers, when a school is sighted, stretch nets across the narrows, and in these the great creatures become enmeshed and easily harpooned.

A unique New Zealand industry is worthy of mention. That is, gum digging. Kauri gum, which is the fossilized resin of the Kauri pine, is found only in the extreme north of

the North Islands, and for the manufacture of high class varnish it is said to have no equal. It forms one of the greatest assets of the Auckland province and for years has been exported to New York and used in the manufacture of varnish. The equipment of the digger consists of a thin long spear, one or two heavy spades, and a scraping knife. In former days kauri gum digging was comparatively easy, as plenty of gum was found a few feet under the ground. On some of the untouched areas this is still the case, but virgin fields are getting very rare, and it is now being taken from twelve feet or more under ground. Until twenty-five years ago the gum was produced by British labor and to some extent by Maoris. Then Austrians made their appearance, and are now in such numbers that it is safe to say that more than seventy-five per cent. of the gum is produced as a result of their labor.

Another sample of kauri gum is obtained from the kauri trees in the forest. The tree must be tapped one hundred feet from the ground. The gum oozed out in stalactical form in from three to five months. Upon removing this deposit, the wound is rescraped and a further flow occurs. The rent charged by the Government is five dollars per tree per annum, and the gum is worth \$500 per ton, while gum obtained from the ground is worth \$1,250 per ton.

The timber of the kauri tree is suitable for furniture, sleeping cars, etc. One tree has produced 110,000 super feet, and I was informed by F. J. Rayner, D.D.S., who has large timber tracts and mills, that it is worth ten dollars per hundred feet at Auckland. The tree reproduces itself from an apple that upon ripening drops from the branches. Fallen trees do not decay, and scientists claim that some of the trees are three thousand years old.

In proportion to population (about one million), I meet more New Zealanders traveling than people of other countries. It is a rich Island Dominion, but they like to see other countries and enjoy life. They are fond of singing and music, at home or abroad, and assist in organizing concerts



PEMBROKE PEAK, MILFORD SOUND, N. Z.



MAORI FAMILY, NEW ZEALAND



MAORI GREETING



MAORIS DANCING THE HAKA HAKA

nightly on the ocean liners. If one of the vocalists suffers from sea-sickness in the middle of a chorus, he rushes out on deck, flies to the side of the ship and returns to join in the popular "Bonnie Banks of Loch Lomond," which is a song I think every New Zealander knows.

POLYNESIAN PASTIMES

CRICKET is as popular in Fiji, Samoa and Tonga as it was in pre-war days in Australia and England. In those paradises of peace and plenty, where the actual necessities of life (anyway, enough to satisfy the average native) are obtainable without the smallest amount of labor, there is ample time for indulgence in the pastime. So in many places they play cricket every day, and, inasmuch as practice makes perfect, are skilful with bat and ball. Cricket is elsewhere a summer game, but it being practically perpetual summer in the tropics, is played there all the year round.

There are several European clubs in Fiji, at Suva and Levuka, and in connection with the several sugar mills in various parts of the group. When a man-of-war is berthed in Suva, which is often the case, daily contests take place between the naval men and the local eleven, and the latter invariably comes off victorious. But it is particularly concerning cricket as played by the natives that I wish to write. The Fijians are fine, stalwart fellows, and are passionately fond of the game. In the field they are as agile as monkeys. They are vigorous, plucky batsmen, and swift but not tricky bowlers. They wear no protection for their bare legs or semi-nude bodies while batting, and appear to take as little notice of being struck by a hard ball as we are of being hit by a soft one. Inter-tribal matches are often arranged and all the adults and youths of each tribe play on these occasions, so that the teams often number as many as fifty or sixty a side. Such matches last for the best part of a week, and if at all closely contested, the excitement runs high. Few villages can boast of the possession of a proper bat, so they use a wooden club instead; and I have seen them using stones and small

cocoanuts when they could not manage to get even a ball. Under such conditions, the game resembles "shinny." Anyone who can play cricket well can reckon upon having a right royal time in the native villages. One who excels at athletics, and particularly at cricket, immediately commands the respect and admiration of the Fijians.

Cricket was even more popular among Samoans in the nineties than it is at the present time. In those days the natives became infatuated with the game, and would at times have up to one hundred on a side. A victorious team would go from village to village around the islands by boat, and where successful would commandeer all the portable property, such as clubs, spears, pigs and girls, they could get into their boats. Besides the players, the umpires are a numerous body, for nearly every one who is not taking part in it is an umpire.

The game was introduced into Tonga by officers of the British Navy. Natives brought fruit daily to the players, who, upon leaving, presented the natives with their bats, balls, stumps, etc. Thereupon the natives ceased work and started playing cricket matches which sometimes lasted a month, with sixty men on a side. When supplies of balls ran out, they would use unripe oranges. They, too, played for pigs, girls, cocoanuts, and so on. A few years ago, the Tongan Government legislated on the subject of cricket, and limited the number of days on which the game may be played to two a week. Before this law was passed, the Tongans sacrificed nearly all their time to the pastime and their families suffered in consequence.

Baseball is very popular at Pago Pago, American Samoa, among white men and natives. I have met rooters at Pago who boasted of their League, and pointed out that the New York Giants and Boston Red Sox took care to give the Pago players a wide berth when they made their tour of the world. Some American governors have been so fond of baseball that they have issued proclamations declaring holidays at Pago twice a week, so that all the inhabitants might attend the ball

games. This, of course, necessitated the closing of business places, including department stores.

Football, too, has come into vogue within the last few years in Fiji, Samoa and Tonga; and some of the players, more particularly the half-castes, give promise of developing into good players.

Of the other diversions of the islanders, dancing occupies a front place, and playing cards is a very common form of amusement at the present day. The favorite entertainment in Samoa in the old days used to be known as the "Po-ula." This means a "night of pleasure." It was an obscene night dance, a variety of antics and buffoonery forming a prelude to the closing saturnalia. In the "Siva," another popular dance, each performer blew a pipe or flute of bamboo while dancing, and the dancing consisted for the most part of throwing the arms and legs into strange attitudes, leaping up and down and turning round, clapping of the hands being an accompaniment incidental to such occasions. The Samoan girls at the dances in Apia and Pago Pago like to "trip the light fantastic toe" in bare feet, and I am told in the whirl of excitement they throw off as much clothing as decency permits.

The Samoans and the Tongans are very fond of singing; but nearly all their singing is in a minor key. Children sing at play, the girls sing at their dances, and boatmen keep time to the dipping of their cars with songs that strike the tourist as being the strangest and most weird that he ever heard. But, I must confess, the monotony of the songs soon becomes wearisome.

Boxing matches, foot races, wrestling and canoe sailing are other favorite pastimes. In the old days in Samoa, club fights and kicking matches were considered to be fine, manly sports. In the kicking matches the combatants endeavored to kick each other down—about as foolish a pastime as were the club fights. In the latter, broken heads were frequent.

Story-telling has always been a popular amusement through the islands. It seems strange that a person's death should be

made the occasion for revelry, but so it was. There are many things which the Samoans do which are difficult for more civilized people to understand. Formerly the death of a chief was celebrated by a feast, but there has been an improvement since then, and now when a person of rank feels he is about to die he sends word round for his relatives and friends to gather and feast with him. A feast is a very important matter over a man's death, and the man himself, seeing he is the principal one concerned, arranges for it to take place beforehand, so that he may get some satisfaction out of it.

One of the strangest pastimes, if it can be included under this head, is that of fire-walking. The performance consists of walking barefooted through a great shallow pit filled with super-heated stones which under ordinary circumstances would burn the soles of the feet at once, but which for some reason do not have this effect upon the performers. Only a few natives here and there possess the singular power. The most celebrated of the fire-walkers are the tribesmen of Mbengha Island in Fiji, whose performances, given from time to time, greatly astonish the large number of visitors that they attract. No European has, so far as I am aware, been able to solve the mystery that surrounds this well-preserved tribal secret, although many clever people have been permitted every facility by the fire-walkers to discover it.

It is claimed that Professor J. F. Langley solved it. He stated that they walk on volcanic stones that are good radiators but poor conductors of heat, so the surfaces cool quickly, while much heat remains within the stones.

I have not had the good fortune to see fire-walking myself, but it must be very exciting as many eye-witnesses have often described it to me. A great circular excavation, the bottom of which is paved with stones, is made and filled with logs of wood. These are set alight and kept burning for ten or twelve hours, additional supplies of wood being thrown in as the pile burns down. Finally, the stones forming the pavement of the excavation become hot and when the embers

have been removed, and the surface made fairly level, the performers, after repeating an incantation, walk through the fiery furnace, deliberately stepping from stone to stone. They are not burned in any way. Their feet are not even blistered, nor do they show the slightest symptom of distress. The same feat is done in some parts of Tahiti and the Cook Islands. I have heard that a European, who believed that the stones were really not so hot as they looked, followed the natives on one occasion and got very badly burned.

A few years ago, Dr. Irwin took five male and two female Tahitians to America to give exhibitions of fire-walking. He had to deposit a large sum with the French authorities as security for their return, and put up a guarantee with the United States Government regarding their health. He experienced great difficulty in securing natives whose blood condition would permit them to enter the United States. After all the trouble, the enterprise was not a success.

VOLCANOES

WEIRD PHENOMENA—BIRTH OF ISLANDS—KRAKATOA

THERE is much volcanic activity in various parts of the Pacific, and activity of a more curious character than is ordinarily associated with volcanoes.

There is an immense volcano on the northern side of Savaii in Samoa, which has been active without intermission since 1905. At first millions of incandescent rocks were hurled heaven high until a hollow peak was built up out of a valley to an elevation of perhaps fifteen hundred feet above the sea-level. As the opening grew larger, the discharge of the rock stopped and immense streams of molten lava, filled up with the inequalities of the ground, made for itself a smooth course toward the sea-coast some ten miles distant. Five native villages have been covered by the flow, and even their former sites can only be conjectured, for the thickness of the lava is seldom under thirty or forty feet at any place. No lives have so far been lost, for, as a usual thing, the approach of a lava flow is slow. The sight is overpoweringly majestic, and once witnessed is never forgotten. Before the eruption the place where the crater now is was a sort of elevated plain, surrounded by mountains. It was almost level, and in fact a favorite camping-place for pig-hunters. The volcano is called Matavanu, a name first applied, I understand, by Herr von Bülow, a resident of the island, and a cousin of the former German chancellor. Many years ago a submarine volcano suddenly came into activity near Olosenga, vomiting forth mud and rocks to a height of two thousand feet, killing fish and discoloring the sea for miles around.

There are three active volcanoes in the New Hebrides

group—those of Ambrym, Lopevi and Tanna. In 1897 a submarine volcano broke out near the north coast of Tonga. It had great force at first and for a time its eruptions were usually frequent. A submarine volcano also showed itself some twenty years ago near Erromanga. In 1894 and in 1911 violent eruptions took place at Ambrym. They did a vast amount of damage, and even now one can plainly see the track that the burning lava took on its way to the coast; and when it poured into the open sea, an enormous volume of smoke and water, several hundred feet in height, was forced up into the air. Lopevi is a volcanic cone rising to a height of five thousand feet, which erupted with great violence in 1908. The Tanna Volcano is always active and is one of the sights of the islands. It has been spoken of as "the great lighthouse of the Southern Isles, which every three or four minutes bursts forth with brilliance, like a revolving light." It is always grand and awe-inspiring.

As far back as all records serve, the Tongan Islands have been noted for volcanic activity. There is a volcano in the island of Tofua. In 1912 the several volcanoes on the island of Niafoou were all in eruption at once and did a great deal of damage. Some years ago an island arose from the water in the Tongan group. The phenomenon was preceded by extraordinary columns of smoke, and flames were seen. Instances of islands produced in our own time by volcanic action are comparatively rare, but, of course, permanent volcanoes are numerous in the islands of the Pacific.

Cape Gloucester, the extreme west point of the island of New Britain, is a complete nest of volcanoes. Sometimes there are a hundred or more craters, large and small, vomiting fire and smoke and fine ashes, and the light produced by the eruption at night is sufficient to read by. From the western end of New Britain extends a series of islands that are all volcanic.

The thermal activity of New Zealand is world-famed, the regions known as the Hot Lakes district being justly celebrated for unique and wonderful sights. Rotorua is the center of

geyser activity much like that of Yellowstone Park. The greatest of the geysers is Waimangu, which a few years ago threw up at irregular intervals immense columns of muddy water and stones, sometimes to a height of fifteen hundred feet. Several parties have been overwhelmed by sudden eruptions and have perished. Close by Waimangu is Rotomahana, a boiling lake. Tarawera, a volcano in this neighborhood, broke into eruption in 1886, causing heavy loss of life.

White Island, off the New Zealand coast, is always more or less in a state of activity. It contains immense deposits of sulphur, but on account of the frequent volcanic disturbances, the greatest difficulty is experienced in getting workmen to remain on the island and work the deposits.

The Malay Archipelago was the scene, in 1883, of one of the greatest calamities the world has ever known—the eruption of Krakatoa—a little island crater in the Straits of Sunda, between Java and Sumatra. The noise of the explosion traveled farther than any previous sound ever known, and the aerial waves traveled around the globe. It is claimed that some of the débris swept all around the world, some of the dust even falling in Europe, and causing very brilliant sunset effects. No reliable figures were ever obtained as to the loss of life.*

The population of Java alone is 37,000,000.

A still worse calamity took place in Java, June, 1919, when a volcanic eruption occurred at Mount Kloit, by which 50,000 lives were lost. The eruption only lasted 40 minutes, but one stream of water, sand, mud and lava, that flowed down the mountain (5,000 feet) was three miles wide and seventy-eight feet deep. The flow continued for two days, destroying many sugar, rubber and coffee plantations.

* It is claimed by some that "flu" germs were carried in the air around the world in 1918.

COPRA, SUGAR AND OTHER PRODUCTS

THE staple product of the South Sea Islands is copra.

Probably not one person in four knows what it is.

First of all, then, let me explain that copra is the dried flesh of the cocoanut. This product yields an oil which enters very largely into the manufacture of soap. It is also used in the preparation of vegetable butter for cooking, and, owing to the increasing scarcity of animal fats, the demand is a very large and growing one. During the Great War, copra was exported in huge quantities to make glycerine for munitions. Another product, used by confectioners, is known as desiccated cocoanut. Even the residue, or cake left after the extraction of the oil, is made into a nutritious cattle food. By feeding a cow a portion daily, I have known an increase of two pounds of butter weekly.

The soap-making and vegetable butter traders, prior to the war, were the most important consumers of cocoanut products.

The husk of the cocoanut also is a source of considerable profit to the planter. The fiber is made into mats and other articles. The refuse that then remains makes an excellent fuel, giving out a great heat, and an oven has been invented in which it can be employed most economically.

Recently it was discovered that cocoanut shells could be used in the making of gas-masks for the soldiers at the front, as they contained a high percentage of charcoal, which was an antidote for the poisonous gases.

The cocoanut trees start to bear in four or five years in the Western Pacific and in seven or eight years in the Eastern Pacific, and the nuts ripen throughout the year. Copra is sold by weight, 6,500 nuts generally going to the ton, which, at \$100

a ton, will return \$45 an acre annually. These were pre-war prices.

The plantations, notably in the New Hebrides, suffer from various pests, such as rhinoceros beetles, bats, flying foxes and snakes. The last-named knock off the blossoms while wriggling through the limbs trying to catch birds. A fly also attacks the leaves of the tree, which it dries up, causing the fruit to fall off before fully grown. But the most serious enemy to the cocoanut is the land crab, which is from one to two feet long, and weighs from three to five pounds, possessing strength enough to break a man's wrist. Land crabs climb the tree, cut off the nuts and carry them often great distances to their holes under rocks, or in hollow trees. They strip the fiber off the nut, crush the shell at the sprouting end and extract the meat.

The cocoanut-oil trade was a steady one in the islands from the earliest period of European barterings. The manufacture of the oil was simple. The flesh of the nut, broken into small pieces, was deposited in a trench or canoe and allowed to decompose, whereupon the oil, of course, very impure, was collected. Where rainfall was heavy, it was dried or smoked in huts. This was in the very early days. Then the copra trade disclosed the fact that the white man's process was a better one. The flesh is cut in strips, two or three inches long, and laid on reed platforms to dry, care being taken not to allow rain to spoil the operation. Then it is bagged and sent to oil mills in Sydney, San Francisco and Europe. The Sunlight Works of Lever Brothers, in Sydney, are the largest oil-crushing works south of the equator.

Copra is at times wrongly blamed for loss of ships by fire, attributed to spontaneous combustion. Copra of itself will not ignite from this cause, but if the jute bags used by the shippers get wet, spontaneous combustion may occur and the reason be wrongly attributed to the copra. I know of one case where a ship with six thousand tons of cargo was destroyed by fire. She had loaded copra at a port en route and

to this the fire was blamed. Shipping men in San Francisco claim that the copra had been stored in a hold close to coal bunkers and from this source had caught fire.

As copra (next to sugar) is the most important product of the Pacific islands, and fluctuations are frequent and wide, it is difficult to quote a price that would be a guide to all the islands.

London, as in most cases, controls the copra market, but San Francisco is the principal market at present, owing to the transport facilities, and governs the price of Pacific islands copra, but the price to the grower depends largely on the cost of freight. For instance, from the Samoan Islands (1918) the freight was 2 cents per pound, but it is difficult to quote a rate that would cover the other groups of the Pacific, owing to scarcity of labor and transportation.

In March, 1918, the price of copra in San Francisco was 8½ cents a pound, *in March, 1919*, it was 4½ cents. Two months later, the price rose again to 8½ cents a pound, and cost of freight from the Samoan Islands is about 1¼ cents a pound.

There are four primary grades of copra, viz.: Machine-dried, Sundried, Smokedried and Mixed; the latter being half sun and half smoke. The difference in the different grades is about ⅛ cent per pound.

In July, 1919, copra was \$280 a ton (about 12 cents a pound) in London. Owing to the requirements of Great Britain an embargo was again placed on shipments of copra from Australia to non-British countries.

For many years sandalwood gave the island traders best results for their labor, but the supply has become exhausted. The natives grind the sandalwood and use it for scenting the cocoanut oil with which they paint their bodies. Commercially, it is used in the manufacture of furniture, and it is also exported to China, where it is used for temple incense.

Rubber, cocoa and coffee are successfully grown in the

Samoan and Tongan Islands, while in Fiji the most important planting industry is sugar. It may be said to be the mainstay of the group, and therefore it deserves almost as full a reference as I have made to copra. Fiji is to be numbered among the finest sugar-producing countries in the world, with an annual output of about 110,000 tons. The Colonial Sugar Refining Company of Sydney was the first to embark on the industry on a large scale, though others had started in a smaller way before them. In 1917 there were over 7,000 men engaged, while the mills, in which the cane from nearly 40,000 acres is crushed, are as scientifically equipped as those in any other part of the world.

In the early days, the company was confronted with many difficulties. The principal trouble was that of suitable labor. The native Fijians, who are not overfond of work, were supplanted first by Tongans, then by Solomon Islanders, and as a last resource, by coolies from East India, who proved to be the most satisfactory.

The actual process of extracting the juice from the cane, and manufacturing therefrom the raw sugar, which is sent to Australia or New Zealand to be refined, and made into the article familiar to all, calls for a high degree of skill in order that the best and most profitable results may be obtained. The Colonial Sugar Company is the principal concern in Fiji, but there are others also, including the Vancouver-Fiji Company, owned by the late Mr. Rogers, a prominent resident of British Columbia. This is a fine mill, and is owned by the estates of the Melbourne Trust. Of course, Fiji is not the only place in the islands where sugar is extensively grown. In the Hawaiian Islands are some of the finest plantations, with splendidly equipped mills that rank among the best in the world.

Very good tea is grown in Fiji, and other products are rice, tobacco, and, of course, bananas, pineapples, which one can buy in Suva for three-pence apiece, and other fruits that find a ready market in New Zealand and Australia.

Among the tropical fruit, the pawpaw, papai or mamie

apple, is very palatable, and possesses medicinal qualities. Pepsin is obtained from the seed inside by extraction, and by tapping the tree in the same manner as is done in maple-trees in America to obtain sap to boil into maple sugar. A hole is bored into the bark of the tree and from this small hole drops of a gummy liquid will run into a vessel. It is then poured onto sheets of glass or other smooth surface, and allowed to remain until it hardens, when it is stripped off and grated into a fine powder. Even the leaves possess digestive properties, as one will find by wrapping chops or steaks between them and allowing them to remain over-night. Boarding-houses in the islands always carry a supply. Poultry hung among the limbs of the tree becomes quite tender. In Jamaica half a pawpaw is thrown into a pot of boiling meat, to make it tender.

KAVA AND TODDY

FAVORITE FORMS OF "TIPPLE"

AS the liquor question is now exercising the minds of most communities, I will refer to drinks popular among Pacific islanders, especially the Samoans, Fijians and Tongans. It is called "kava" in Samoa, or "yagoma" in Fiji.

The old method of production, introduced from Tonga and Samoa, was most repugnant, but the Pacific natives, as well as other and more civilized races, will do strange things for drink. A party of natives would take the root of the kava shrub, *Macropiper Methysticum*, chew it for a time, and expectorate the juice into a bowl. They would then fill the bowl with water, squeeze out the chewed root under water with their hands, then strain it, leaving a milky greenish-looking fluid. Thereafter a few genial souls would gather around the bowl, and drink the mixture out of cocoanut shells.

When drunk to excess, kava causes intoxication, but it has the merit of not making its devotees quarrelsome in their cups. The action of kava is peculiar, inasmuch as drunkenness from this cause does not affect the brain, but paralyzes the muscles of the legs and arms so that a man lies helplessly on the ground, perfectly aware of all that is going on. Its effects are more akin to those of opium than alcohol. The natives are usually quite susceptible to it, but even four large cocoanut bowls of it causes only a slight weakness of the knees in a European.

Most Europeans have a feeling of nausea after a cupful. Kava is said to affect the eyesight. It affords the cheapest spree I ever heard of; for, by taking a big drink of water on an empty stomach, on the following morning, the native achieves a relapse into drunkenness.

Kava is now produced by the cleaner method of pounding the root with stones in a mortar. I have heard of cures resulting from it, in cases of Bright's disease and kidney trouble. Old natives claim that early whaling ships from Cape Cod round the Horn, bound for Behring Seas, having on board sailors suffering from certain diseases, would land them at one of the Samoan Islands, and call for them on their return; often finding that simple diet and free drinking of kava, had effected a cure.

Another favorite "tipple" among the natives is that known as "Toddy" in the Line Islands. A cut is made in the stalk of the cocoanut flower, and a wisp of cocoanut fiber is tied around it, and bent down so that the milk that comes out will drop into a cup. This drink is described as a delicious beverage if drunk immediately, but if allowed to stand for forty-eight hours, fermentation sets in, and any one who drinks it then is driven almost crazy.

What are known as "bush beer" orgies are very common in the Cook Islands, of which Raratonga is the principal. An excess of bush beer simply makes the consumer drowsy and seldom brings out the ugly side of his nature. Little harm results. The islanders sit round the beer-tub for hours, quaffing the beverage and singing. It is simply the juice of oranges, more or less fermented; is easily made, and pleasant to the taste, except when adulterated with tobacco juice. It can be made from a few dozen oranges at any time. Like the "keg party" of the no-license areas in New Zealand, the "bush beer" parties are not unpopular among the young men. The authorities in the Cook Islands are endeavoring to put down this form of dissipation, but they are finding it difficult, the imposition of heavy fines not proving a deterrent. An even more ardent drink is distilled from the root of the "Ti" or "Ki" plant, *Duaceona*. Several of the *Bounty* mutineers drank themselves to death in Pitcairn Islands in this manner.

All the natives are great smokers. Tobacco is, of course, a modern innovation, known only since shortly before the

arrival of the missionaries. It is in such high favor that children as well as adults indulge in it freely. The native method of smoking is decidedly social. A small cigarette, formed by folding leaf tobacco in a strip of dead banana leaf is lit and passed round so that the same cigarette is often conveyed to half a dozen mouths. Somehow or another a pipe looks out of place in a native's mouth, and I do not remember ever having seen a native on the Polynesian Islands smoking one; but in New Guinea they employ their wives to fill a section of bamboo with concentrated smoke, the bamboo being then passed over to their lord and master, who sucks out the concentrated fumes.

A drink called "arrack" is popular among the Australian blacks on the shores of the Gulf of Carpentaria. They say that it "makes black fellow mad." The drink was introduced many years ago by the Malays, who supplied it in exchange for pearl shell and tortoise shell. Among the blacks there are many murders, most of which can be attributed to drink. These blacks are a depraved race. Among their food is alligator meat, which a white man's stomach will not retain.

On one voyage passengers on the *Mariposa* had an amusing experience at Apia. They partook too freely of kava, with the result that they could not board the ship which was anchored in the harbor. The gangway being useless, it was found necessary to haul the tipplers aboard in baskets, much to the amusement of the other passengers.

Kava was the popular drink of the Hawaiians many years ago, until the American, with his world-famed concoctions and brews, lured the islanders from the crude native drink.

MISSIONARIES

FRANK BURNETT, in his book on the Pacific, refers lightly to the work of missionaries. He holds that the adult native only embraces Christianity for what he can get out of it. In short, Mr. Burnett does not confine his estimate to the adult, as he describes a native of Nanouk, one Petro, aged fourteen years. Sticks of tobacco are the chief articles to win the affections of the natives of most islands. Petro had noted the anxiety of different missionaries to secure converts. He had attached himself to a couple in rotation, but later decided to become a Catholic, and told Mr. McArthur, a local planter: "Protestant no good—he no give tobacco." Petro therefore proceeded to embrace Catholicism, and approached the confessional. On observing some tobacco in the priest's possession, he could not resist the temptation and coolly appropriated it. Upon meeting Mr. McArthur, he gloated over his feat and remarked: "Me now a Pagan." In securing converts nothing proves more attractive than a phonograph.

It is due to the missionaries to state that many travelers who have spent several years among the Pacific Islands give great praise to their work. Whatever may be said in depreciation of their work, it must not be forgotten that prior to their advent in these islands, many of the islanders were cannibals. As the result of mission labors, cannibalism is almost unknown in the Pacific islands.

The islanders find many causes for objection to the advent of the missionaries, as they try to alter the order of things and the status of the wife and mother. Prior to their arrival, about all the exertion the husband indulged in was fishing and bathing; the wife supporting the family, even doing the hunting.

In some of the larger islands feuds existed among the "bush" or hill natives and those resident on the coast. The native's wife, or wives, is his worldly wealth. At times the "bush" native will sweep down to the shore, attack the residents, capture their wives, and retire to his stronghold feeling quite content with his victory, as he then has slaves to enable him to continue his life of indolence.

In many instances, I have heard of the good results from missionary labors. The methods of certain sects are described in different degrees of efficiency. Some years ago the Mormons received special credit in marked contrast with other missionaries. They teach them trades and interest themselves in the dealings between the natives and the storekeeper, or shopkeeper, insisting that they get good value for their merchandise. In fact, Mormon missionaries incurred the ill-will of country storekeepers in New Zealand, for insisting on the Maoris getting proper value for their work or produce, and not being overcharged on purchases.

In July, 1918, a band of war recruits from the Gilbert Islands landed in Sydney, en route for France, to supplement the British forces there. Some people question the wisdom of sending Pacific islanders to the cold climate of France. A couple of years ago, one hundred and fifty natives from the island of Nuie, near the equator, volunteered for service in the British Army, but they have since been returned, as the climate was found to be too severe, and they spent much of their time in hospital. The Rev. W. C. Willoughby, of the London Missionary Society, describes the wonderful extent to which many natives have been trained in matters of first aid, application of simple remedies, rough ideas of surgery, proper methods of dressings, setting of bones, and even administering chloroform. There is a scarcity of qualified medical men, but it is greatly to the credit of the latter that a number of small hospitals have been established in the different islands and the natives trained to give aid in the above directions. The Gilbertese natives possess only a very

limited degree of education, but under training show a remarkable aptitude for their work in the above direction due to their hospital training. The Fijians and Tongans are, however, most remarkable for their work in the above direction, due to their excellent educational systems.

Mr. Willoughby urges that the Gilbert Islands administration should provide the children with some form of elementary education or technical training. The chief instruction given them now is by the London Missionary Society and Roman Catholic Missions, whose systems give great emphasis to the ethical and religious side.

Mr. Willoughby describes his visit among the Catholic missionaries as being most pleasant. He took particular interest in their schools and was shown some very creditable specimens of printing produced by natives in the English and Gilbertese language. The efforts of the nuns, who taught the children, were hampered by want of school equipment. Some charitably disposed person can perform worthy acts by sending some maps, desks, illustrated works, etc.

Among the missionary societies in the Western Pacific there are in New Guinea two missionary societies, which are Limited Companies with a London register—the Paupauan Industries, Limited (capital \$150,000 or \$200,000), and the Kwato Association (capital \$75,000). A dividend up to five per cent is permitted; any excess profits being devoted to educational and material advancement of the natives. The company will advance money to a native to buy or build a boat, taking payment as he can afford it, or if he is desirous of planting a grove of cocoanuts, will advance him money on his labors till he harvests a crop, which is not for five to seven years after planting.

The London Missionary Society, which embraces all conservative Protestant denominations outside the Baptists, are now practically Congregationalists, all other British Protestant denominations having in later years established societies of their own.

MORMON MISSIONARIES

The Mormons have displayed great energy in the Pacific in recent years. The result of their efforts is very marked in New Zealand, the Tongan, Samoan, Tahitian, and Hawaiian islands. To New Zealand they have sent five hundred missionaries in the past sixteen years, who secured nine thousand converts, of whom four thousand were Maoris (aboriginals).

At Hastings, in the North Islands of New Zealand, they have purchased three hundred acres of land and erected a college which cost, including land, \$125,000, this college having an attendance of eighty students.

They have secured nine thousand converts in the Hawaiian Islands, four thousand in Samoan Islands, and fifteen thousand in the Tahitian group. They labor quietly and identify themselves with the domestic life of the natives, teaching them handicraft, agriculture, etc.

During the past fifteen years, I have encountered Mormon missionaries on all the ships traveling on the Pacific. I once asked a Mormon elder, Mr. Gardiner, from what sect he found it most difficult to secure converts, and he replied: "The Roman Catholics."

A band of young Mormon missionaries outward bound for the South Sea Islands, in 1917, were turned back at Honolulu, owing to United States laws against the departure of men of military age.

STRANGE BUT TRUE FISH STORIES

MOSTLY ABOUT SHARKS AND TURTLES

You'll take my tale with a grain of salt
But it needs none, nevertheless.

NO doubt many who read the heading of this chapter will smile, incredulously, with raised eyebrows. As a matter of fact, the statements recorded here are absolutely correct, strange though they may seem.

Shortly after my arrival in Australia, I visited Twofold Bay, Eden, New South Wales, and heard tales about the "killers." * These are veritable wolves of the deep. When battling with a school of "right" or whalebone whales along the coast, they know the value of combination, and close in on all sides, and fiercely attack, by jumping at their prey and biting them, driving their frightened victims into the bay, where the monstrous creatures either are captured by the whalers from their boats or else are stranded in the shallow waters. The "killers" are afraid of, and will not molest, the giant sperm whale.

When a whale is secured, the "killers" satisfy themselves by eating the tongue, leaving the rest of the body.

The whalers have a lookout in the season on the headland at the bay, and when whales are sighted, they fire a gun. The boats then go out, and the killers accompany them, attacking the whale, delaying its progress, and thereby assisting the whalers to secure it. Should a whale-boat capsize, the killers keep off the sharks which abound in the vicinity. It is said that the killers have some kind of telepathy, for if a pack at the south

* Members of the dolphin family will attack whales, seals and porpoises—noted for their strength and ferocity.

of the bay attack a whale, and there is a pack at the north end, five miles off, they seem to get a message and come rushing through the ocean, to join their mates. Each of the killers is known by its peculiar marks. They have big spots of white or color, and are separately named by the whalers. The aborigines in the Two-fold Bay district had an idea that when one of their number died, he came up a killer, so they had a great veneration for them. They have a certain area which they frequent, and it is said they object to fishing-boats dropping a kellick line, and will lift the kellick and tow the boat to a different part. I cannot, however, vouch for this statement.

When carcases of the whales, after the killers have had one of their busy days, lie strewn along the beach, the place, strange to say, becomes a health resort. Rheumatic patients visit Two-fold Bay then and try the whale cure, which consists in almost burying one's self in a whale's body, thus getting a bath of blubber, which, it is said, generally rids them of their complaint.

Several patients tried the cure while I was there, and brought back to the hotel such an aroma of dead whale that the other guests left them to enjoy it all to themselves.

Whales are slothful, and sleep very soundly. In January, 1917, the steamer *Niagara* ran into a whale in the tropics, asleep, and cut it completely in two. The effect of the impact sustained by the ship is described by Chief Engineer Peterson as being very severe.

A species of killer is also found off the coast of California and British Columbia, where they indulge in fierce fights with whales, and huge volumes of spray and foam are thrown up. In the Behring Sea this killer is very destructive among the seal herds.

Whales travel in schools at times. About Easter (1918) twenty-five whales were washed ashore north of Auckland, New Zealand, by a tidal wave. Soon another tidal wave reclaimed them, taking them out to sea, by which time they were dead, and a third tidal wave carried them ashore once more.

By this time the aroma arising from the carcasses established the claim that the ambergris of whales is the base of all perfumes. In due course, the blubber was tried down into whale-oil, barreled, and shipped to Australia on board the ill-fated steamer *Wimmera*, which was sunk by a German mine, and thus parts of the whale returned to its native home.

Ambergris is the most valuable product yielded by the sea. It is a morbid secretion from the intestines of the sperm whale and resembles soft yellow soap or hardened froth. It can be smelled from a great distance. Strangely enough, it is the base for the manufacture of the most expensive perfumes. Its value varies, but forty dollars per ounce was an average price. Strange tales are told about sailors, ignorant of its value, scrubbing it off the decks where waves had carried it. Sometimes it has been found high and dry on beaches. At Honolulu a big lump, a mixture of sand and ambergris, was found on the beach and used as a door weight until its real composition was revealed. Then it was sold for \$750. Captain Allen, of the Samoan and Ellice Islands, once gathered a cask of the precious stuff from the sea, and knowing what it was, got full value for his find.

Now, for something about sharks. In the charming tropic still known as Aitutaki, in the Cook Islands, sharks are caught by their tails. Major Large, the Government Resident, has often seen this very interesting exploit, and as he speaks from his own observations, and not merely from what has been told him, and is, moreover, a most reliable man, we may accept as correct what he has narrated.

Sharks from five to seven feet long like to sleep in some coral caves beneath the surface of the water in a deep and spacious lagoon. These haunts are known to the natives of the island, and when they go shark hunting, a party of them takes a boat and pulls out to the place where the sharks repose. An expert diver, to whom apparently is given all the honor and glory, and also all the danger, first ascertains that they are "at home" in their caves and sleeping soundly. Then he

leaps overboard, dives down to them and nooses the tail of the shark that is nearest to him. If it awakes while this is being done, it is soothed by gentle massage. As soon as the noose is tight, a signal is given, and the shark is quickly hauled tail first into the boat, to its astonishment and to the consternation of anybody who gets in its way while it is still alive and vigorous.

The Rev. William Wyatt Gill, who did a great deal of missionary work at Aitutaki, has also described the natives' daring actions in regard to sharks. There once lived on the island a very successful shark-catcher named Reubena, whose ancestors had excelled in the perilous sport for generations. One day Reubena, with a noose in his hand, dived down into a submarine cave. Just as he had slipped the noose over the tail of the nearest shark, it moved, and Reubena found there was not room for him to get out of the cave. Gently stroking the side of the shark he induced it to move away. Mr. Gill, in recording the incident, says that massage is believed to be very agreeable to the fish; but, of course, care must be taken not to stroke it the wrong way, or irritate it.

Reubena was making his escape when, to his dismay, another shark came back from feeding on the lagoon, and blocked up the entrance with its unwieldy body. Even Reubena, with all his skill and courage, dared not attempt to massage a shark's head, and he waited in captivity until the monster should move. At last, after a while, which seemed to be hours, the shark passed quietly into the cave. A faint light streamed in through the opening, and the fisherman, who had barely sufficient strength left to spring from the sandy bottom, rose to the surface of the water, and was seized by his mates, with blood flowing from ears, mouth and nostrils. He was taken ashore and attended to, and recovered, and the same afternoon paid another visit to the cave, and succeeded in capturing several of the inmates. Mr. Gill stated that the flesh of the lagoon shark is regarded as a very great delicacy.

Sharks are numerous round about Tonga, and are caught

in considerable numbers by hooks, or more commonly still by a simple bait and a running noose. At all great feasts in Tonga, the presence of as many sharks as possible is considered to be an indispensable requisite. They are always cooked entire, whatever may be their size, and are enclosed in a long basket made from the cocoanut leaf. The flesh of a young shark is not bad eating. The Maoris have nowadays lost all interest in the old-time institution of shark-fishing. The present generation of them much prefer tinned salmon or dried shark, as a relish. But in the old days, the Maoris looked forward to shark-fishing as a national holiday. The bodies of the sharks, after they have been disemboweled, were hung by the tails to a tall scaffolding till thoroughly dried by the sun and wind. Then they were stored away, just as we might store bacon.

There are conflicting opinions as to whether a shark will attack a native. My belief is that they will attack a native as quickly as a white man, if they are molested. Possibly the color of the white man's body may attract a shark's attention quicker than the dark skin of the natives.

They are more ferocious when traveling in pairs. Sharks are not very vicious among the islands, especially where they are right out in the ocean and fish food is plentiful. They are more dangerous in harbors like Sydney and Melbourne. I have never known a shark to attack any of the native boys who dive round the ship for coins thrown by passengers.

In some islands, particularly Christmas Island, the Ellice and Phoenix groups, turtles are very plentiful. They breed rapidly. The female turtle will swim ashore at high tide and crawl along the sands, probably scraping several holes before she settles down to lay her eggs. After selecting a spot, she will lay from one hundred and one hundred and fifty and return to the sea. After a lapse of fourteen days, she will return to the same spot and lay about the same number of eggs, and again return to the sea. She will repeat this procedure until she has laid from four hundred to six hundred eggs.

Then she abandons the nest, having covered the eggs with sand, and the heat causes the eggs to hatch in three or four weeks. When the young are able to wriggle, they make for the sea, and at times large numbers are devoured by the fish and the male turtle. They are rich in oil. Their eggs are soft-shelled, but are much liked by the natives. It is claimed that but for the destruction of so many of the young, turtles would be as plentiful in the Pacific as rabbits are in Australia.

De Rougemont may have been romancing when he talked about his own turtle-riding experiences, but the fact remains that turtle-riding is by no means a difficult feat. On the Great Barrier Reef, which runs along the North Queensland coast, "joy rides" on turtles are an exciting and thrilling pastime. The turtles when they come ashore at night are intercepted on their way back to the water and incapacitated by being turned over on their backs. When the party is ready for the sport, the turtles are put on their feet, or their flippers, again, and the riders sit astride their backs.

Once the turtles get into the water, the fun is fast and furious. When they are very big and there is a danger of one's legs being gripped by the hind flippers, the precaution is taken of affixing a wire or rope to the flippers, so that the turtle can be made to release its hold. Sometimes they dive, but the riders soon learn the trick of tugging at the shell at the point where the head protrudes, and so preventing the diving business altogether. Turtle-riding is not so dangerous, if you mind the flippers and take your sport in shallow lagoons.

At Rockhampton, Queensland, a feature of their carnival week is the turtle race. The jockeys catch a flipper in each hand, and have to exercise great agility to retain control. Unless they are careful, the turtle will dive and then the rider is off the turtle and out of the race.

My experience with turtles convinces me that they are no more expensive to keep than goats. In 1908 a Chilean warship, *General Baquedano*, visited Sydney, and the officers made me a present of a small turtle, about the size of one's hand.

I placed it in our fern-house for safety, and it appeared to thrive there for several years, without much attention to food.

THE SHARK AND TURTLE ON TUTUILA

A very pretty ceremony takes place at times at Vai Togi (Hurled Waters) nine miles from Pago. It is known as the "Calling of the Shark and Turtle." The legend states that many years ago a Samoan prince and princess were walking along the so-called iron-bound coast near the village of Vai Togi, bemoaning the threatening disaster to their people. During the walk, a Samoan god (Aieotai) appeared to them and they were greatly frightened. Summoning courage, however, they addressed the god, saying, "Famine and death threaten our people. What may we do to save them?" The god replied: "You can save your people only by great sacrifice." "You"—addressing the princess—"must jump from yon cliff into the sea, where you will be turned into a turtle. And you"—turning to the prince—"must do likewise, and your form will be changed to that of a shark." This they immediately did, and ever since, at various times, the natives will congregate on the shore at this spot and chant a native song, thus:

"Fonea! Fonea! lau mai si manu mea!
Ose i iluga nei Osa Letuli iluga nei!

the interpretation being:

"Come, friends, to the feast prepared for thee!
Arise and prepare for this, as have the Letulis
(Chiefs) always!

Soon the turtle and shark rise to the surface of the water and the natives wave gracefully to them, saying: "In Iele! La Lele!" meaning "Beautiful one." Strangers are cautioned against pointing toward the sharks, lest the familiarity be regarded as an offense by the spirit of the martyred royal Samoans. Of course, skeptics will not believe the claim that the shark and turtle will rise to the surface for the natives, but

I make this statement on the positive assurance of a surgeon of the United States Navy whom I met there, and Captain Trask, who has been many years in the trade.

A natural phenomenon occurs at Pago Pago yearly during a certain phase and condition of the moon, which time is predicted to a nicety by the Samoan wiseacres. There comes to the surface of the Pago harbor millions of wormlike bodies of varying lengths from six to twelve inches. These worms usually appear before dawn and the top of the water becomes almost a writhing mass of phosphorus. By sunrise all vestige of these worms has disappeared. On the predicted "Pololo" night, the people gather in the various villages skirting the harbor at Pago, and dance and make merry, awaiting the event. The sentinel stationed on the beach shouts "Pololo," when the worms appear. The people then flock from the villages and embark in small boats, and although the hour is 1 A.M. the harbor presents a very busy scene. The worms are gathered in dip nets; many are eaten raw, while more are taken ashore and cooked, and considered a great delicacy. The officers resident there informed me that they have not acquired a taste for the "delicacy" yet.

I have witnessed and heard of some rather startling accounts about flying-fish; I have seen them fly aboard on the Indian Ocean, but more often on the Pacific. They are generally attracted by the lights of the deck. One flew aboard the *Sonoma* in 1915, near the equator. It was cooked for my wife and found quite palatable. Captain Trask related that on the preceding voyage, a flying-fish flew into the porthole of the cabin occupied by Mrs. Hamilton, an actress, when she was retiring, and flopped merrily about her room, causing great alarm to the actress.

On a trip to Alaska, in 1916, I was describing the incident, when a Seattle man said that it was nothing compared to his son's experience while going around the Horn the year before. He caught a flying-fish with a pedigree, and put it into a cage with a canary, which taught it to sing.

The natives of the Line Islands, i.e., the Gilbert and Marshall Islands, near the equator, are so expert in catching flying-fish, that they stand in a skiff with a torch in the left hand, and scoop in the right, and when the fish are attracted to the flame, they will swing the scoop and catch several at a time.

Shooting flying-fish on the wing from small boats, is one of the water sports of Honolulu. When the fish is shot, it will drop into the water but won't sink, and Honolulu retrievers are trained to swim out and bring it ashore. An easy method of catching fish that is resorted to on some of the Hawaiian Islands consists of taking the leaves of the Holo or Ahuhu plant, which resembles the indigo plant, putting it in a bag, mixing it with sand, and then grinding it up. You then drop the bag over the boat's side and the contents will stupefy the fish, which rise to the surface and float on top of the water.

Outside Tahiti, natives catch flying-fish by fixing a sail in a small boat, against which they suspend a small light. The fish is attracted by the light, toward which it flies, with the result that it hits sail or mast and drops into the boat. Another method of catching other fish at Tahiti is rather novel. The native chews cocoanut into fine threads, which he wraps around a stone, making it fast by tying a fish-line around it with a slip-noose. At the end of the line is a fish-hook.

Fish are most difficult to catch in Pago Pago Harbor; in fact, two Japanese catch nearly all the fish secured. The Chief of Leone, at Pago, described to me the effect of the tutu nut, which is one-third the size of the cocoanut. There are many little nooks in the rocks where the fish hide, and to prevent the waves from breaking into the place, the natives build walls of coral. The nut is then grated and thrown into the water, the fish become stupefied and they are easily picked up.

On the Island of Guam, in the Ladrões, fish are caught by throwing a bagful of these nuts in the water, resulting in the same effect. Speaking of Guam, reminds me of an amusing incident that occurred during the Spanish-American War.

An American battleship, en route from San Francisco to the Philippines, laid to in the offing and fired a gun at the Governor's house on the island. Soon a small boat was launched from shore and proceeded to the man-of-war with a message from the Governor, giving the commander his compliments and expressing regret for not answering the salute, because he did not have any powder. Although the war had been in progress some months, the Governor was unaware of it.

Throughout the islands, "fish drives" are held in the lagoon at regular intervals. I saw one once. The natives, armed with their many-pronged spears and plaited bags of utu-nut, as it is called in Raratonga, had assembled on the beach. At a given signal they waded into the lagoon, a large proportion of them trailing behind with the bags of utu-nut. The spear-bearers formed lines across the lagoon, and the people with the utu-nut walked slowly about, scattering it. As the latter came into contact with the water, a peculiar narcotic was formed and diffused. This process is called "poisoning the lagoon," and when it has been done, the fish get into a condition best described as intoxicated. They swim about in a foolish, aimless manner, and are quickly seen and captured.

In all the lagoons in the Tahitian group are to be found many varieties of most beautiful fish of various shapes and colors. But the stranger must beware, unless he possesses the knowledge of Professor David Starr Jordan, of Leland Stanford University, for some of these fish have poisonous spines, while the flesh of others is also poisonous. Centipedes in this quarter will, when molested, sink their claws into one's hand and leave a perfect tattoo to decipher, which will remain for months.

Professor Jordan must know all about fish, for I ran across his tracks in the Samoan group, where he studied their habits. But there is one incident in his travels he may forget to publish in his book on fishes. He, with his wife and a distinguished Japanese scholar, were passengers on the island steamer *Kawan*, between Apia and Pago Pago. The skipper, a New

Zealander, was ready to anticipate the wishes of his guest, until the Japanese, in a somewhat peremptory manner, asked for a glass of water. The skipper, not knowing the status of his highness, suggested that he should go direct to h—— and get his own glass of water. Dr. Jordan could not suppress a laugh, and remarked that it was the first time that he had heard it suggested that a professor of the Leland Stanford University should go to h——.

This awakens memories of the days of long ago. David Starr Jordan and I were born in Wyoming County, New York, and attended the same old stone schoolhouse in Warsaw; but I left in 1866, the year he entered, and I guess he stayed at school longer than I did.

The effects of change of diet on fish was forcibly impressed upon me once when I was dining, on a Friday, with a priest at Cairns, Queensland, and what seemed to be a fine piece of pork appeared on the table. He gave me a slice out of the center, and it was alternately fat and streaky lean, and had a grassy flavor. My host asked me if I did not think it strange to see meat on his table on Friday? I admitted that it did, and he explained. The "pork" was not pork at all, but fish. Storms in the Gulf of Carpentaria, of the western shore of York Peninsula, had washed thousands of fish miles inland. When the water receded, they were left high and dry among the grass, upon which they subsisted for months. This diet, together with the heavy dews, had the effect of giving the fish a porky flavor.*

Searcy, writing of his explorations in the Gulf of Carpentaria, states that on one occasion he heard sounds as of music, apparently coming from beneath his boat. Looking over the stern, he saw striped fish, which, in his opinion, must have caused the sounds. He also described a method of catching fish by drugging them, as at Pago and Guam. Natives secure a piece of a certain creeper, bruise it between stones and tie it to a stick, which they thrust into the water. Soon a whitish

* This story is based on the peculiarities of the little fish called *anableps*.

cloud appears, and the fish, stupefied, rise to the surface. The plant is believed to contain strong narcotic properties.

The natives of New Guinea (Papua) fish by means of a kite made of four leaves each, sixteen inches long. From the kite are suspended two lines; one is held by the fisherman and the other reaches the water. To the latter is attached a thick tassel made of spider's web, which bobs up and down in the water. In biting at this bait, the fish becomes entangled in the web and is hoisted by the fisherman into his canoe.

FISHING IN CHINA AND JAPAN

As far back as any data is obtainable, Chinese and Japanese have resorted to unique methods of catching fish with cormorants. The opening of the fishing season in Japan was celebrated as a holiday—the Emperor lending éclat to it by his presence.

At night the boats float down stream, guided by the fisherman. In the bow of the boat is a pole, to which is attached a lighted brazier.

The birds are held by cords fastened to a brass ring fixed around their throats, the other ends being held by one man, who controls a dozen birds.

The fish are attracted by the lights, and the birds then dive repeatedly, catching the fish in their mouths, but are prevented from swallowing them by the brass ring around the neck. As soon as the fisherman decides the bird has enough fish, he pulls the cord and it returns to the boat, when the gullet is emptied. When this is done, the bird returns again for further supplies. The fishermen are very expert, and rarely ever get the lines mixed. Toward morning, the fisherman having secured a sufficient load, removes the rings and the birds are then fed.

PACIFIC CABLE

THE Pacific Cable was completed in 1902, and the first message was sent by Sir Stanford Fleming, on October 1, 1902; he was thus enabled to girdle the globe by using the existing cables via India and Europe.

Like all other new undertakings, the Pacific Cable had many obstacles to face. Vested interest already controlling cable businesses did not calmly submit to any move that would curtail their revenue. For years after completion, the Pacific Cable was run at a loss, owing to lack of patronage, although it was owned by the people whose taxes went to make up the deficiency. Happily, now, the experimental period has passed, and in 1916 the Pacific Cable carried eight million words, showing a profit of about \$89,600.

The progress of the traffic lodged and handled is best compared in the following figures:

<i>Year</i>	<i>Number of Words</i>	<i>Year</i>	<i>Number of Words</i>
1902-3	228,354	1909-10	1,356,135
1903-4	864,969	1910-11	1,849,613
1904-5	871,713	1911-12	2,131,376
1905-6	922,766	1912-13	2,660,807
1906-7	1,128,662	1913-14	3,117,839
1907-8	1,231,892	1914-15	4,403,098
1908-9	1,225,048	1915-16	8,181,119

The progressive volume of traffic is singularly gratifying, and indicates a growing recognition of the advantages secured by an Imperial-owned cable.

The laying of the Sydney-Auckland Cable in 1912 has further greatly enhanced the value of the service to and from Australia. This secures duplicated routes for all traffic given transit at Norfolk Island, and forms a great factor for avoid-

ance of slow transit to both International and Intercolonial traffic. The route of the cable is as follows:

	<i>Miles</i>
Queensland to Norfolk Island	837
Norfolk Island to Fiji	981
Fiji to Fanning Island	2,043
Fanning Island to British Columbia	3,458*
Norfolk Island to Auckland, New Zealand	718
Auckland to Sydney	1,251

* The longest cable span on earth.

As a result of their labors, the contractors for the cable company found that the bed of the Pacific Ocean was one continuous row of hills from Brisbane to Norfolk Island, where the cable rests at an average depth of 2,500 fathoms; from Norfolk Island to Fiji it sinks to a depth of 2,600 fathoms (nearly three miles); from Fiji to Fanning Island the greatest depth is 3,071 fathoms, with a minimum depth of 1,700 fathoms; from Fanning Island to British Columbia the greatest depth is 2,700 fathoms. The temperature, at a depth of 2,500 fathoms, averages about 34° Fahrenheit.

To render it immune from attack by Teredos—a marine molluscan borer—which is active to a depth of four hundred fathoms, the cable has to be provided with a special brass tape binding. This also prevents any damage from fish bites, a further menace that is found in the tropics.

With the establishment of the Pacific Cable, a revision of rates was secured. A comparison between the present tariff and that existing prior to 1902 shows the great reduction in charges for cable facilities to and from the Southern Hemisphere. The concessions have been further extended by introduction of *deferred* (half rate) and *week-end* (quarter rate) classifications. The commercial community has evidenced its appreciation of these changes by the immense advance in the number of words lodged for telegraphic transit. War conditions have occasioned frequent disturbances of the half and quarter rate service, but the temporary suspension, at intervals,

218 FORTY YEARS ON THE PACIFIC

is an experience that can be confidently viewed as non-existent in normal times.

The cost and maintenance of the Pacific Cable are divided as follows:

New Zealand	two eighteenths
Canada	five eighteenths
Imperial Government	five eighteenths
Australia	six eighteenths

The cost of the Pacific Cable was roughly about £2,000,000 sterling, or \$10,000,000.

WIRELESS

MALE radio operators only are carried on ships nowadays, although a certain magazine states that a woman operator sailed from Philadelphia for Europe in 1917. About 1910, the *Mariposa*, trading between San Francisco and Honolulu, took on a woman wireless operator, but she became so popular with the passengers that the crowded condition of her office prevented strict attention to business. Even so, the experiment was profitable in that the passengers, to justify their presence in the wireless room, sent many more messages than they otherwise would have done.

Two operators are required on all boats since the loss of the *Titanic*. At times, they will issue a newspaper, filled with information picked from the air. Some days, when conditions prevent, no paper can be issued. Such a bar, however, did not hinder an enterprising operator, on a vessel sailing from San Francisco a few years ago, from providing a paper every morning. He even produced New York Stock Exchange quotations. All went merrily until one day a New York broker, who was on board, on the strength of a rise in quotations reported in the newspaper, opened wine for the smoking-room crowd. Next day, however, some true quotations came through and Mr. Broker discovered that his stocks had suffered a big drop, rather than a rise. The radio man lasted only that one trip.

The telegraph service, consisting of wireless for the most part, in Alaska and Yukon Territory, is owned by the American and Canadian Governments.

I am glad to present the following interesting and authentic résumé:

WIRELESS

BY KENNETH ORMISTON

Passengers from America to Australia may communicate with all points of the world, throughout the entire voyage, except when the atmospheric conditions are abnormal. These atmospheric disturbances, variously known as "atmospherics," "strays," or "static," are quite severe at times in the tropics, and are caused by electrical discharges in the air, which affect the receiving apparatus in exactly the same manner as wireless signals.

Static varies with the time of the day, the time of the year, and the locality. As a rule, disturbances are more severe at night than in the daytime, and more prevalent in Summer than in Winter. As it is Summer at the San Francisco end of the voyage when it is winter at the Australian end, and vice versa, the operators on this trip make up their minds that to fight static is unavoidable either at one end or the other. The most troublesome form of static is that caused by nearby thunder storms, as the effect from lightning is to paralyze or destroy the sensitiveness of the receiver for a time, from a few seconds to a few minutes, during which time several words of the incoming message are lost. Another form of static which is very troublesome is the so-called "rain static," found only in the tropics. This form of static causes a continuous hissing sound in the receivers as long as there is rain around, or fairly close to the ship. This static prevents anything but very strong signals from being read at all.

Wireless signals may be transmitted much farther at night than in the daytime. No exact cause for this effect has been determined, but it is usually conceded that it is due to the absorption by the sun's rays of certain essential parts of the wireless energy. Another peculiarity is the difference in range when transmitting over land or over water, the greatest ranges being attained when the transmission is entirely over

water. This is due to some kind of absorption by the land, and to obstructions such as mountains. The Poulsen system, with which the vessels of the Oceanic Steamship Company are equipped, overcomes these two difficulties to a very great extent, it being possible to transmit signals at great distances in broad daylight, as well as cover long stretches over land.

The islands of the Pacific are well supplied with radio stations, but those forming the chain of communication from San Francisco to Sydney only are of interest to us at present. These are the stations on the American and Australian coasts, and in the Hawaiian, Samoan and Fiji Islands. Commercial radio service between the United States and the Hawaiian Islands is carried on both by the Marconi Wireless Company and the Federal Telegraph Company, the latter company operating the Poulsen System. The stations of the former company are located at Bolinas, California, a short distance north of San Francisco, and at Kahuku, on the northern extremity of the island of Oahu, about thirty miles from the city of Honolulu. The Federal Telegraph Company has its stations for the trans-Pacific service at South San Francisco, on San Francisco Bay, a few miles south of the city, and at Heeia Point, Oahu. In addition to these high-power stations are the lower-power stations of the Marconi Company, at Daly, California, and Wahiawa, Oahu, and the Federal Company's station on the beach at San Francisco. All these, with the exception of the Marconi high-power radios, are available for ship-to-shore wireless service.

Samoa is represented on the wireless map by the United States Naval Radio station at Pago Pago, on the island of Tutuila. A high-power station is operated by the New Zealand Government on the island of Upolo, sixty miles distant, and located in the town of Apia. The main station in the Fijian group is at Suva, on the island of Viti Levu, though there are, as in the Hawaiian Islands, several small stations for inter-island communication.

Conditions are met with in the tropics which are not to be

encountered anywhere else, and "freak" work is not unusual. For instance, the lower-power station at Pago Pago is able to maintain regular nightly commercial service with Honolulu, yet can be heard only a few hundred miles in a southerly direction. Honolulu is about 2,600 miles from Pago Pago, in a northerly direction. Occasionally, signals are heard from low-power stations at enormous distances, while again the high-power stations, much closer, will be faint.

With a modern receiving set of the maximum efficiency, the low-power spark stations (the spark system-being the style affected by daylight absorption) can easily be heard up to five thousand miles at night, whereas one thousand miles by daylight is a very good receiving record. The Poulsen stations, however, can be read up to six thousand miles by daylight from the high-power stations. Signals from the 60 kilowatt Poulsen Station at Tuckerton, New Jersey, have been copied on the Steamship *Ventura* for the entire voyage, the distance from Tuckerton to Sydney being about ten thousand miles. The *Ventura* is equipped with the most modern supersensitive receiving apparatus, and has been able to accomplish some very remarkable long distance receiving work. For instance, the 200 kilowatt Station at Elviess, Germany, which maintains twenty-four hours commercial service with Tuckerton, New Jersey, is heard throughout the entire voyage from San Francisco to Sydney. At a point between Pago Pago and Fiji, the *Ventura* is exactly half way around the world from Elviess, and wireless signals are thus received at the greatest distance possible on the earth's surface, 12,500 miles.

The following is a note made by Mr. J. Sterling, radio operator on the North Pacific, formerly of the Yukon Telegraph Trail:

Radio Communication—"Rain Static, so-called, occurs almost to a greater extent in northern latitudes than in equatorial latitudes. In fact it is often possible in the north to advise the officers on the ship's bridge of the approach of a rain squall, or sleet storm, some time before they can see it

"The reason that distant radio stations are sometimes heard better than nearby ones, is because the other waves are propagated both in an upward and an outward direction. The more or less parallel waves reach nearby stations, while those going upward are deflected downward at an angle upon reaching the upper strata, and arrive at a spot on the earth's surface far beyond the normal range of the station. Ships which are, therefore, at that particular spot at a given time are enabled to receive the signals."

WIRELESS STATIONS IN THE PACIFIC OCEAN

as taken from the *London Year Book of Wireless Telegraphy*, 1918. Stations open to Ships and Shore Communication:

NOUMEA	LABASCA	TAVEUNI
SUVA	APIA	TUTUILA
AWANUI, NEW	AWARUA, NEW	CHATHAM ISLAND
ZEALAND	ZEALAND	HOBART
PORT MORESBY	FLINDERS ISLAND	KIETU
RABOUL	TULAGI	OCEAN ISLAND
GUAM	NAURA	
MACQUARIE ISLAND	THURSDAY ISLAND	

High-power Stations open to Ships and Shore Communication:

SYDNEY	PAPEETE HEEIA (Hawaii)	WAHIAWA (Hawaii)
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Private Stations:

WASHINGTON ISLAND	KOKO HEAD (H. I.)	HONOLULU (Fort de Russy)
KAUNAKAKAI (H. I.)	FANNING ISLAND	KAWAIIHAE (H. I.)
	LĀHAINA (H. I.)	AUCKLAND (N. Z.)
	KAWIENG (H. I.)	

High-power Private Station:

PEARL HARBOR
(Hawaii)

ALASKA TELEGRAPH SIGNAL CORPS

THE outside world hears but little about a band of heroes who lead a solitary life, but at times exciting existence in the trackless wastes of the Arctic. I refer to the United States Signal Corps, the eyes and ears of the Army. On the outposts of civilization their work consists of manning the wireless and telegraph stations erected at various points. They go to the aid of stricken "mushers," prospectors, etc., who stray from the cabins and become exhausted and frostbitten.

Many heroic deeds have been performed by this self-sacrificing body of men. One instance occurred in 1916, when a soldier was fifty miles from his post at Fairbanks and cold 60 degrees below zero. He knew that in the vicinity there was a cabin owned by a man, which he eventually found. On entering, he saw the poor fellow, named Monte, lying in his bunk, with his feet badly frostbitten. He had been in that helpless condition for forty-eight hours. The brave young signaler tapped the wires leading to Fairbanks, asking for immediate aid. Pending arrival of assistance, he put the man's feet in coal oil, to try and thaw them. Help appeared thirty-six hours after his call. They placed Monte on the dog-sledge, and walking alongside, started for Fairbanks. On arrival, they placed him in a hospital, where every attention was given him by the surgical staff and Sisters in charge, to save his feet, but their efforts were unavailing, and it was found necessary to amputate them.

YUKON TELEGRAPH TRAIL

ANOTHER body of self-sacrificing and efficient men are the telegraphers and their linesmen of the Canadian North, on a line known as the Yukon Telegraph Trail. They exist in cabins, forty miles apart. Terrific storms play havoc with the lines, but communication must be kept open, entailing great exertion and risk. With the characteristic hospitality of the frontier, they will share their fire and food with the lost traveler. At times, the fierce cold is beyond their endurance and one may succumb, as the pathetic case of one McKenzie, near Hazelton, British Columbia, in 1909. One morning members of a passing pack train found McKenzie frozen to death in his cabin. He lay in his rough bunk, with his head craned over its edge, listening to the telegraph sounder. Doubtless his linesman was out when McKenzie woke up to find his fire gone out during the night—the cold had crept in and the walls were lined with frost. Probably he felt enfeebled from the keen cold and delayed getting up to light his fire. Such delay in the north is fatal—the encroaching frost had numbed him so that he was too weak to rise. And so he died. But the feature of the whole incident which strikes home, and forcibly accentuates the irony of fate, was that even in death his head was still inclined toward the sounder which was clicking away merrily the latest Associated Press news for the Dawson City papers. News from London, Paris, Berlin, Shanghai, New York. News from the four corners of the earth, not two hours old.

Kennicott—The name Kennicott, associated with the famous Alaskan copper mine, is worthy of reference here, because it was founded by an old Western Union telegrapher of that name. About 1865, the Western Union Telegraph

Company started to connect America with Europe by telegraph. They sent a body of experts into the northwest, headed by Mr. Kennicott, to construct the line. For many months these brave men were engaged in the erection of a telegraph line through this unknown waste, intending to cross at Behring Strait, and reach Asia, and thence on to Europe. About this time, the successful completion of the Atlantic cable was accomplished by Cyrus W. Field, so there was no necessity for constructing a line across Behring Strait. Kennicott camped on the spot which retains his name.

Speaking of Kennicott reminds me of an item I saw in a New York paper, in 1916, when I reached there, showing how people plunge on stocks of which they know very little. A conversation was overheard in a train going into the city. One man said to another: "I bought one thousand Kennicott yesterday, Jack," and the other remarked: "What and where is that?" The reply was: "I don't know, but it is some proposition in Connecticut."

SUBMARINE SIGNALS

A NEW device for the protection of steamers in foggy weather is the submarine signal, with which a great many passenger vessels are equipped. It consists of a telephone in the pilot house, which is connected with a tank, placed as low as possible in the vessel's hold on each side of the bow. From each tank there is a dictaphone supplied by a dry battery, which carries the sound to the telephone. On shore, light-vessels, buoys or prominent point a submarine bell is installed at from twenty-five to thirty-five feet below water. This bell is struck by electricity or compressed air—a code of strokes being used to distinguish different stations. Water, being a better conductor of sound than air, conveys the stroke of the bell distinctly.

In foggy weather, the captain of the steamer, when approaching land, and in vicinities of submarine bells, can go into the pilot house and on placing the phone to his ear can hear these signals from five to fifteen miles off. If the bell should be right ahead, it will be heard distinctly in both receivers, but if on one side, it will be heard in only one receiver. To bring the signal ahead, the vessel has to swing around to bring the sound in both receivers. This device is invaluable to mariners in foggy weather on rock-bound coasts.

OIL AND FUEL USED AT SEA

SUBSTITUTION of oil for coal on ships is a matter of great importance. F. B. Dunn states that the use of oil as a fuel at sea was worked out over forty years ago by marine engineers in the Caspian Sea, who carefully guarded the secret. The American-Hawaiian Steamship Company was one of the first to investigate fuel oil for maritime use. The *Mariposa* was the first deep sea ship to use oil in the Pacific between San Francisco and Tahiti. About the same time the United States Naval Liquid Fuel Board made exhaustive tests, to ascertain the best method of using oil. As a result of these tests, under the direction of Rear Admiral George B. Melville, United States Navy, some battleships were equipped to use fuel oil exclusively. In 1903 the British cruisers *Bedford* and *Arrogant* were changed from coal into oil-burners at Davenport, England.

Passengers often wonder why ships travel a greater distance in one day than another. It is often a question of fuel consumption—economy. It is difficult to get the actual figures as to the amount of oil consumed, but it is about as follows: A ship of, say, eight or ten thousand tons, making fourteen knots an hour, could often in fair weather do fifteen knots, but that extra mile an hour would probably cost in coal or oil consumption, \$150 or \$200 more in the twenty-four hours. Oil makes very little smoke when intelligently “fired.” If you want to make a chief-engineer of an oil-burner jump, point out the volume of black smoke coming out of the steamer’s smokestacks. He will make for the fire-room and raise Cain. A big volume of smoke shows waste of oil and bad combustion.

In seeking information, I get various replies, all, however,

claiming that much of the speed of the vessel depends upon currents, tides, weather, the state of the ship's bottom—whether covered with barnacles or clean out of dry dock. Again, bad time is often attributed to poor coal.

The human element is also to be reckoned with. Firemen get very thirsty and go ashore at way ports, where they may drink too much. This prevents a ship sailing at the advertised time, and so well is the Firemen's Union organized, that it will hold up a ship and not let her go until the last fireman is on board. There is nothing to do but grin and bear the loss.

I have known a ship of 13,000 tons gross making fifteen knots an hour on a consumption of six hundred barrels of oil, increase her speed to seventeen and one-half knots, by burning nine hundred and fifty barrels of oil. You might say, therefore, that to increase the speed of a 13,000-ton-oil-burning ship from fifteen to sixteen knots under ordinary conditions, thirty per cent. more oil would be required.

The question is often asked, how much is saved by burning oil instead of coal? This depends entirely on the relative cost of oil and coal. It varies greatly in different parts of the world; for example, coal may be \$5.00 a ton in Australia at the same time that it is \$40.00 a ton in Italy.

I give the following figures which appeared in the *Vancouver Province*, Feb. 19, 1913, referring to the steamer *Princess Charlotte*, 3,000 tons, of the Canadian Pacific Railway.

The figures were authenticated by Mr. W. G. Dickie, and are from actual tests carried out:

COSTS PER DAY

COAL FIRING		OIL FIRING		DIESEL ENGINE	
100 tons @ \$4.50 ...	\$450.00	344 barrels Oil @ 90c.	\$314.00	115 lbs.	\$103.00
13 Firemen	23.80	6 Firemen	11.10	No Firemen; no	
10 Trimmers	15.00	No Trimmers required		food required.	
Food for 23 men ...	9.56	Food for 6 men	2.52		
	<hr/>		<hr/>		<hr/>
	\$498.36		\$327.62		\$103.00

SAVINGS MADE PER ANNUM:

Firing boilers by oil, instead of coal	\$62,500.00
Using Diesel engine, instead of oil-firing	81,700.00

When obtainable, crude petroleum is used as it comes from the well. On other occasions, it is not used until the benzine, gasoline or kerosene is distilled, the percentage of which in each case depends upon the character of the oil. It is often very thick and runs slowly through pipes, but is thinned down by steam coils in the tanks.

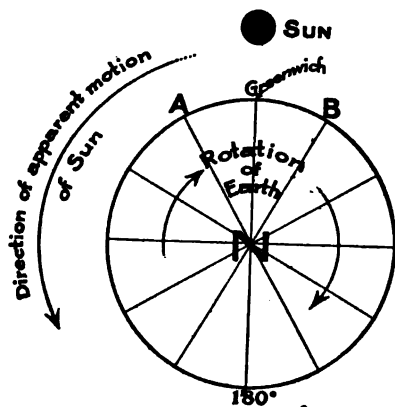
The petroleum of the Pacific and the Mexican coasts has as asphaltum base, while that obtained near the Atlantic has a paraffine base. When a ship is traveling in a cold latitude at a temperature of the water at 40 degrees above Fahrenheit, considerable difficulty is experienced in getting the oil through the pipes.

EXPLANATION OF DIFFERENCE OF TIME

BY AN AMERICAN NAVAL OFFICER

THE sketch below represents the view of the earth that would be obtained by an observer stationed in a balloon above the North Pole. The circle would be the equator. The rotation of the earth and the apparent movement of the sun are shown.

Now, suppose the sun is as shown over the meridian passing through Greenwich, England (0° longitude): it will be



noon at that place. At A, the sun is not yet overhead, so it will be some time before noon. At B, the sun has passed and is to the west; therefore, it is afternoon. So it will be seen that west of Greenwich (west longitude) as at A, the time in England is earlier than at 0° , and east of Greenwich, the time is later.

The earth revolves once in twenty-four hours, so at 180° longitude, the difference in time is twelve hours. Let us suppose two points—one $179^{\circ} 59' 59''$ west longitude;

the other, $179^{\circ} 59'59''$ east longitude. At the first point, it will be practically twelve hours earlier than at Greenwich, and at the second, twelve hours later, so the total difference is twenty-four hours. For this reason, when crossing the 180th meridian to the westward, we lose a day, and in the opposite direction, we gain a day.

Since the circumference of the earth may be reckoned as twenty-four hours and is 360° , time changes one hour for every fifteen degrees of longitude, which is equal to nine hundred nautical miles *on the equator*.

Longitude west, Greenwich time best,
Longitude east, Greenwich time least.

On one trip I made between New Zealand and Australia, in the year of the San Francisco fire (April, 1906), one of the passengers of the *Moana* was the noted American comedian, Willie Collier. We were traveling west, which means that we had to add about half an hour to every twenty-four hours' run. In other words, passengers traveling west on a fifteen knot an hour steamer, can lie abed half an hour later daily; while, if one is traveling east, he must rise half an hour earlier.

We made up daily a Calcutta sweepstake on the run, and one young actor—I think it was Jack Barrymore—bid in the number of the ticket that won. Collier protested, holding that Barrymore had an advantage, because he was aware of the difference in time, having allowed twenty-five minutes over the twenty-four hours in his calculation when bidding. In fact, Collier wanted the winner to divide the sweepstake. Freddie Shipman settled the dispute, and thus bloodshed was avoided.

During this trip we saw a waterspout, five miles on our starboard, near Lord Howe Island.

RULE OF THE ROAD AT SEA

TWO STEAMSHIPS MEETING

When all three lights I see ahead,
I port my helm and show my RED.

TWO STEAMSHIPS PASSING

Green to Green, or Red to Red,
Perfect safety—Go ahead.

TWO STEAMSHIPS CROSSING

(This is the position of the greatest danger ; there is nothing for it but good lookout, caution and judgment.)

If to my starboard Red appear,
It is my duty to keep clear ;
To act as judgment says is proper ;
To PORT—Back—or Stop her !
But if upon my Port is seen
A steamer's starboard light of Green,
For me there's naught to do but see
That Green to Port keeps clear for me.

CLASSIFICATION—TONNAGE

CAREFUL owners of ships submit their vessels to Lloyd's every four years for classification in order to obtain valuable recognition from the British Board of Trade, and with a view to intelligence.

"A-1 at Lloyd's" is noticed in the classification of American, Canadian and British ships, and corresponds to the French rating in *Bureau Veritas*.

Great Britain, in describing her tonnage of mercantile marine, refers to gross tonnage of all the enclosed spaces on board the ship, which is the measurement inside the hull at one hundred cubic feet to the ton; that is, when loaded to the Plimsoll mark.

Registered tonnage is all the enclosed cargo spaces and it is on this tonnage that ships pay all claims, such as wharfage, pilotage, light and canal dues. But when describing the tonnage on her naval fleet, England measures displacement, that is, in terms the cubic feet of water the ship would displace.

American mercantile marine in giving tonnage, refers to the displacement which is equivalent to the cubic feet of water the ship displaces at the rate of one hundred cubic feet to the ton. The same method is observed by the American Naval Fleets.

Net tonnage means the dead weight of the ship at 2,000 pounds American, or 2,240 pounds British.

What surprises me most was the care taken in preserving the record of ships. I had heard something about the pedigree of stud books, English and American, which enabled the pedigrees of celebrated horses to be traced, but the marine world had them beaten.

On calling upon Captain Spinks, a Sydney marine ad-

juster, to obtain some information under this heading, Mr. Blacklock, a South Sea Island merchant, rang up to get the age of a wooden ship that was built many years ago in California, which he desired to purchase. Captain Spinks obtained a book from his library and in about three minutes told Mr. Blacklock where and when the ship was built, material of construction and classification.

Owing to the number of ships falling into her possession and the scarcity of American navigating officers, the United States Government in July, 1917, gave permission for qualified officers, subjects of any nation engaged in war against the Imperial German Government, to take charge of, and navigate, ships sailing under the American flag. Prior to this date the law prescribed that all watch officers should be citizens of the United States.

Shipbuilders on the Clyde are shrewd and surprise ship-owners by their watchfulness, even after a ship leaves their yards. An instance came under my notice a few years ago of a big ship on the Pacific, which had a guarantee that she could travel seventeen knots—any repairs to be made good by the builders for a certain time. On one voyage, she broke one of her propellers, near Honolulu, and sent an account to the builders for repairs. The builders ignored the claim, pointing out that while the guarantee was for seventeen knots, the company had driven her nearly eighteen knots! This serves to show the watchfulness builders keep on their output.

ALASKA

THE LAND OF THE MIDNIGHT SUN

WE left Vancouver for Alaska in August, on the *Princess Sophia* of the Canadian Pacific Line, with one hundred and sixty saloon passengers, the moon lighting our shimmering path through the First Narrows of Vancouver's famous harbor.

On Sunday morning, about five o'clock, we passed through Seymour Narrows, through which a strong tide runs, and where steamers find it difficult to make headway. This waterway must be navigated in daylight under penalty of forfeiting marine insurance. The land is so close on either side that one could almost hit the shore with a stone.

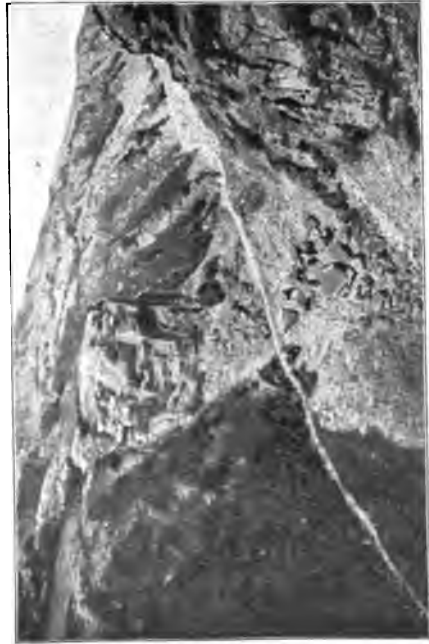
From early morn one sits on deck and gazes and wonders. After careful comparison of the attractions offered by the inland seas of British Columbia and Alaska, with the inland seas of Japan, the hot springs and beautiful lakes of New Zealand, the American Rockies, the Thousand Islands in the St. Lawrence, Sydney Harbor and the New South Wales Caves and many celebrated localities in Europe, I have come to the conclusion that this is the most attractive tour in the world in the summer months. The trip is made through an ocean river, formed by the islands from Tacoma, Seattle, via Victoria, Vancouver to Skagway, with only a break at Prince Charlotte Sound, where the mighty Pacific once more sweeps on. Snow-capped mountains break the horizon in many places far back from the coast, but close at hand there are low-lying timbered lands and islands clothed in beautiful verdure. Then, at times, one sees young mountain gorges which soon disappear. Next, the traveler's eyes fall upon broken shores



Llewellyn Glacier, Lake Atlin



Waterfront at Fairbanks



Old White Pass Trail



The Useful Alaskan Dog

ALASKAN SCENES



White Pass, Stage En Route to Dawson



Hydraulic Mining



Shooting White Horse Rapids



Inspiration Point, Photographed at Midnight

ALASKAN SCENES

with white sandy beaches inviting one to frolic in the rolling surf.

While excessive heat is met with in many parts during the summer, the thermometer ranged from 50° to 60° during the Alaska trip in August, 1916. And there is no danger of becoming seasick in these waters, as there is hardly a ripple, except that caused by the steamer. A fellow passenger, a silk manufacturer, pointed out to me during this trip that it was from the steamer's wake that the first idea of designing watered silk was obtained.

As one travels in these Pacific fjords, he is impressed with the splendid steamship accommodation afforded by the Canadian Pacific, the Grand Trunk, the White Pass, and the various steamship companies' boats which are up to date. Everyone on the *Princess Sophia* was out for a good time and many friends were made. In a gathering of a couple of hundred tourists on board ship are heard many good stories. A Seattle man described a valuable breed of ducks they have in his State of Washington. The family took some of these ducks to Alaska. In due course they killed one and found a gold nugget in its crop, so they continued to send ducks prospecting through the district, with good results.

About noon we reached Alert Bay on Cormorant Island, one hundred and eighty-three miles north of Vancouver. It is a fishing village and clam canneries are established here. This place is also noted for the largest collection of Indian Totem poles in North America, some of which are one hundred feet high, most artistically designed, and representing the genealogy of the different clans. I heard an amusing story about this village from Miss Chambers, the truth of which I cannot vouch for, that even here the days are so long that the villagers have to blindfold the hens to get them to go to sleep. In this northern latitude I was surprised to see the Crimson Rambler rose blooming freely. Next, we proceeded north to Prince Rupert, the Canadian terminus of the Grand Trunk Pacific Railway. Prince Rupert experienced a great

boom in 1910. At that time real estate sold at fabulous prices, and buildings of all kinds were built on rocks, so few and far between were suitable building areas.

The Skeena River, the largest next to the Fraser River in British Columbia, empties into the Pacific at this point. This river is navigable by paddle-wheel boats for a distance of 130 miles, as far inland as Hazelton, British Columbia, which is an outpost of the Hudson Bay Company. Up the river are a couple of rapids, however, where the boats at low water have to line up and be pulled over. This is done when ascending the rapids by tying a hawser around a tree, the other end being attached to a capstan on the fo'castle head, and worked by a donkey-engine on board. Residents predict that Prince Rupert will be the most important shipping port between Canada and the Orient, as it is five hundred miles nearer Yokohama than Vancouver. Already it is a big shipping point for salmon and halibut, which are carried to Eastern cities over the Grand Trunk Pacific Railway. Special trains of eight to ten refrigerator cars, containing twenty tons each of halibut, leave Prince Rupert regularly for the Eastern markets, chiefly New York and Boston.

Speaking of the fishing industry, the best halibut fishing is on the banks in American waters near Ketchikan, which is supported chiefly by fishing and mining. In 1916 there were forty salmon canneries within a radius of one hundred miles of Prince Rupert, where twelve hundred halibut fishermen were employed. These white men, together with two thousand Indians, come in for supplies at the end of the season and spend their wages.

Halibut live to an age of eighty years and weigh upward of two hundred pounds. They are fished for all through the year. Salmon only live four years, both male and female dying at the same age.

The Swedes form a very large proportion of the fishermen in these waters, and I was surprised to learn that these men can go on a bigger spree and flip their money away more

quickly than fishermen of any other nationality. I had always considered them to be a very saving and industrious race.

Owing to the short pack of halibut in 1917, some of the fishermen earned as high as \$2,300 for two to four months' work.

Salmon Fisheries.—Apart from the commercial interest of this industry, it is not generally known that the salmon, when running in the rivers, are in such numbers as to literally turn the waters black. Six hundred miles up the Fraser River, British Columbia, the salmon are so plentiful where it is twenty feet deep, that those on top are forced out by those underneath, and it is impossible to get a pole down among this writhing mass. One may stand on the river banks and secure the fish with one's hands. Here the Indian stands with a long fish spear and lays in his stock of salmon for the winter. While he is spearing the fish and tossing them onto the bank, his squaw and children will open and clean the fish, and hang them on large racks made of poles, to dry.

In waters between and adjacent to the United States and Canada, the fishing industry fluctuates, so that any figures I may give are liable to change. The disputes that occur over fishing in each other's waters, the obtaining of bait, and shipping through certain territories, provoked strong opposition in interested quarters, and between agitation, litigation and legislation the fishing industry is almost always in a disturbed state.

Members of the Siwash tribe of Indians flock to all landing points on the arrival of the steamers. The flat, round-faced natives are always a source of wonder to tourists. Further north all the huskies rush down to the docks on steamer days. Tall stories are told about the rainfall on these islands, although the weather is beautiful in summer. A missionary was addressing a tribe of Siwash Indians at Prince Rupert on scriptural matters. He referred to the Flood, when the world was destroyed, stating that after the

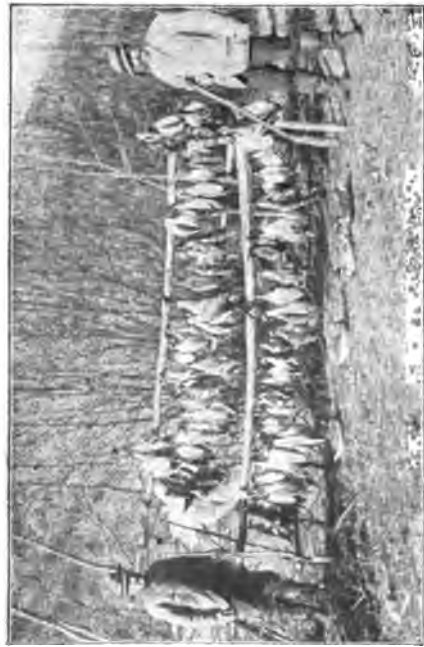
rain had fallen for forty days and forty nights the land was all washed away. At the end of the address he asked if the audience would like to question him. An old chief stood up and remarked that "If the bulk of his address was no more reliable than that statement about the world being washed away by forty days' and forty nights' rain, he did not think much of it, because it rained in Prince Rupert for one hundred and forty days and nights, and it was not destroyed yet."

We arrived at Ketchikan, ninety-one miles from Prince Rupert, at night. The town appears to be built on piles, covered with planks. It is the first port one touches in the American territory of Alaska.

Great Britain appears to have had some control of Alaska as early as 1820. In 1825, a treaty was made between Great Britain and Russia, which owned the great territory of Alaska, by which Russia was confirmed in the possession of a strip along the Pacific Coast, reaching down as far south as 54 degrees, 40 minutes. In 1895 gold was discovered in the Yukon territory, which is inaccessible from the sea, except through the strip given to Russia in 1825, which now belongs to the United States. No attempt had been made to delimit the frontier between this and the Yukon; so after considerable negotiations, the matter was submitted to the arbitration of three American and three British jurists. Mr. Aylesworth, afterward Sir Allen Aylesworth, and Sir Louis Jette were the two Canadians on this board. The decision was subsequently in favor of the American claim.

A good deal of feeling was aroused in Canada through the action of Lord Alverstone, the only English member of the board, in agreeing to relinquish two small islands, Sitklan and Kannaghumutt, without the knowledge of his Canadian confrères.

From Ketchikan, we approached Wrangell, the oldest settlement in these waters, one hundred miles farther north. The village is situated on an island of the same name, and is the most picturesque town site between Vancouver and



Duck Hunting, Near Dawson



Fort Gibbon, at Mouth of Tanana River



The Yukon at Five Fingers



Fish Wheel on the Tanana River

ALASKAN SCENES



Vegetable Exhibit, Skagway



Huskies Hauling Lumber 54 Miles, Seward



Ketchikan



Flower Garden in Skagway

ALASKAN SCENES

Skagway, lying in latitude $56\frac{1}{2}^{\circ}$. Many years ago, it was settled by the Russians, and there are still to be seen the remains of an old Russian fort built to protect them from the Indians. As in other ports, fishing is the chief industry, although it is the shipping point for settlements that extend up the Stikine River, one hundred and sixty miles into the interior. At Wrangell, hunters of big game leave the ship and proceed inland, where the game is plentiful, and guides are obtainable, who receive six and seven dollars per day for their services. Wrangell is also a fur market, and the same may be said of all the villages along the Alaskan coast.

As we journeyed north, the timber became smaller in size and less valuable, but suitable for making paper pulp. Shortly after leaving Wrangell, we steamed through the Wrangell Narrows for twenty miles. These narrows are lighted with stationary lights and flash red and white on either side of the channel. The light is supplied by some carbon preparation, and protected by wire globes.

When we passed the town of Petersburg, we ran into a lot of small icebergs. For every foot of iceberg above the water there are seven feet below. The thermometer fell to 50 degrees.

A series of wrecks occurred in these waters in November, 1917, among which the favorite, well-known steamer, *Mariposa*, was lost. She entered San Francisco, Auckland and Sydney trade in 1883. At the time of her wreck she was on a voyage from Alaska to Seattle and had rescued the crew of the fishing schooner *Manhattan*, who were in six dories. The fishing schooner had gone ashore, near Juneau, and when the *Manhattan* landed there, they were arrested and charged with looting the craft *Alki*, which had been wrecked previously near Siki.

Shortly after leaving Juneau, the *Mariposa* herself went ashore on Strait Island, having on board five hundred and thirty souls and a cargo of copper ore valued at \$750,000, and canned salmon worth \$250,000. The entire ship's party was

rowed ashore in the lifeboats and subsequently picked up by the steamers *Spokane* and *Jefferson*, the latter landing her survivors at Seattle. The *Spokane* proceeded southward and two days later struck a rock in Milbank Sound, being left high and dry when the tide receded. The personnel of the *Spokane* and the survivors of the *Mariposa* who were aboard her were taken off subsequently by the steamer *Princess May*. They were landed at Prince Rupert, being carried to Vancouver by the steamer *Princess Sophia*. All of which took place in winter weather.

We arrived at Juneau, the capital of Alaska, about ten o'clock at night. This is the Governor's place of residence, and a big center for the mining and fishing industries. Part of the city is built on planks, supported by piles, while the remaining portion has the appearance of standing on its head. One is impressed with the very alert, up-to-date attitude of the business people. One can buy silver fox skins here for from \$500 to \$1,000 each. A lady passenger asked a resident if it rained in Juneau all the time, he replied: "No, it snows sometimes."

Here are located the Alaska-Gastineau and Alaska-Juneau Mines. About \$250,000 is distributed monthly in wages in this neighborhood. The ore of the Alaska-Gastineau Mine is handled more economically than in any other mine in the Northwest. The Perseverance Mine is four miles back in the mountains from the mill site, which is situated on the ocean front. The ore, on being mined, is drawn to the mouth of the tunnel and dumped into an ore chute, which carries it down four hundred feet to an ore train, and is then conveyed to the mill. The train consists of forty cars, carrying ten tons each. The chute is wide enough to load four cars at a time. The train travels four miles by electric power, to the top of the crushing house, where the cars are dumped four at a time, by running them into a tippie which turns upside down and empties the cars into the ore bins. At the time of my visit 8,000 tons a day were treated, but the capacity could be

doubled. The value of the ore varies, but it costs about sixty-five cents a ton to treat it.

We left Juneau at three o'clock in the morning and arrived at Taku Glacier a couple of hours later. The beauty of the scenery is much enhanced by the numerous glaciers on the sides of different mountains, and one is impressed with their intense blue. At noon, we sighted an American army post at Haynes, and arrived at Skagway about 2 P.M. Later on, I saw some beautiful strawberries that were grown at Haynes.

Skagway is the terminal point for several lines of steamers. The population is under 1,000. Once it was 15,000. The Bank of Alaska had been opened, with Mr. Andrew Stevenson, a most enterprising citizen, as president, and there is evidence of much prospective development. Here are also situated the offices and shops of the White Pass and Yukon Railway. What amazed the visitors most was to see the beautiful specimens of flowers, fruit and vegetables grown here in the open.

Vegetation at Skagway was a surprise to me. I always thought it was a frigid, snow-bound, desolate country, but discovered that there is more snow on the mountains on Vancouver Island in August than there is in the neighborhood of Skagway.

The interior of Alaska is rich in the blooms of wild flowers, and in Skagway we saw some of the most beautiful pansies, stocks, geraniums and dahlias grown outside in private gardens. The hills about the town abound in gooseberries and raspberries. In the town, raspberries and black, white and red currants are grown successfully. As for vegetables such as beets, cabbage, lettuce, celery and potatoes, I never saw them grow better. The lettuce and celery are exceptionally crisp and well-flavored. Let it be remembered that this is the Land of the Midnight Sun; and, owing to the length of the days, vegetables of all kinds grow vigorously during the short Alaskan summer. In parts of Alaska they get a few

hours' darkness in summer, but in June there is a dim light all night.

Continuing the journey, we took the train over the White Pass & Yukon Railway to White Pass and Lake Bennett. This road was built by the late Michael Heaney, who, when he died a few years ago, left a large fortune. He bequeathed much of it to different men who had worked for him or been associated with him in business. It is claimed that this road cost more per mile for the first twenty-five miles than any of the roads ever built with so little tunneling. The construction of the road was started at the end of 1898, and completed to White Horse, a distance of one hundred and ten miles, in two years, costing \$100,000 per mile. Much of the way it is cut into the mountain-side, and one becomes very dizzy in looking at the stream below.

The White Pass & Yukon Railway furnished a splendid service for making the trip from Skagway to White Horse, passing many scenes of grandeur. Their trains are equipped with up-to-date observation cars and stops are made at various points of interest to enable tourists to inspect the same.

On arrival at White Pass, 2,860 feet above the sea-level, a stop is made at the boundary line between the United States and Canada. A monument marks the spot, and poles are erected on either side of the line from which the Canadian and American flags are flown. Here custom-house officers from each government inspect the baggage, and there is a sign on the Canadian side, announcing that "mushers" must report to the Canadian immigration officers.

"Musher" is generally a mining prospector traveling over the country. The origin of this term is interesting. It is claimed to have emanated from an old French trapper, employed by the Hudson Bay Company. To urge his dogs through the snow, he would shout, "March on," remembering the inspiring words of the Marseillaise, and out of this grew the word "Marchons" and "Musher."

The terminus, one hundred and ten miles from Skagway,

is at White Horse. From White Horse the W. P. & Y. R. R. Company runs a line of steamers on the Yukon River in summer, to Dawson City in Canadian territory to carry the mail and passengers, while in winter it maintains a line of coaches to do the trip of four hundred miles, traveling in daylight only, and arrangements are made for staying overnight at wayside inns.

Although much has been written about Alaska, I cannot refrain from referring to the teams of huskies, or sledge dogs. At one time, dog teams were equipped and started from Skagway for the interior. I visited Mr. Yeoman, who has a collection of Siberian and Eskimo huskies. He has one husky, born in North Greenland, which was used by Admiral Peary in 1906 in his search for the North Pole. They are generally employed in hauling sledges in winter, but in summer it is interesting to watch them being hitched up to a cart in a team of three. One dog jumps over the shafts into his place, while the other two dogs fall into their places, and all three wait while the harness is being adjusted. Huskies are fond of fighting, especially if a strange dog enters their yard. When Mr. Yeoman brought the Peary dog home, however, he moved among the others without being molested. It appeared that there was so much of the smell of the wolf in him that the Siberian and Eskimo dogs would not go near him.

Mr. Yeoman allowed me to drive the dogs, so, sitting in a cart, I guided them with reins attached to the axle of the two wheels in front, as may be seen in the illustration. If I wished them to go to the right or left, I pulled the corresponding rein. I was proceeding proudly along, when they observed another dog, which they raced after, and upset the cart and me in the ditch, and that ended the drive.

The Siberian husky is a cross between the Siberian timber wolf and a dog. Cases are known of full-blooded Siberian timber wolves being raised in captivity and trained to work and pull a sledge, but they are treacherous and unreliable. The sledge is a vehicle almost invariably used throughout the

North, and the driver guides his team by voice and whip. The dogs can be stopped by application of a brake which consists of a spike or spear which the driver can apply by pressing it into the snow.

The malamutes and huskies, two varieties of dogs bred from the wolf by the natives from one end of Alaska to the other, have played a very important part in the development of Northwestern Canada and Alaska. They were utilized by the Indians before the Hudson Bay Company invaded the Great Northwest, nearly two and a half centuries ago. Just where the first of the species came from has been lost in history, but the natives still have a crude method of breeding them by crossing the females with wolves.

Except that the husky is somewhat larger than the malamute, the two are very similar in appearance. Their usual color is smoky gray, although once in a while a black malamute is encountered. These are about in the proportion of black sheep in a flock. Both have round pupiled eyes, and long hair, under which, in the winter, they grow a soft fur which is discarded in summer; both have bushy tails, strong legs and deep chests. Neither malamute nor husky has learned to bark, but both can howl and yelp loudly in voices that are decidedly unmusical. The ringing of church bells, the playing of a band, or the singing of a soprano or tenor voice will cause them to sit forlornly on their haunches and give forth the most horribly discordant wails it is possible to imagine.

Their characteristics are identical in every respect. Both are faithful servitors, fierce fighters in a rather cowardly manner, and inveterate thieves. Even when not hungry, they steal just to keep in practice. When a fight starts, every dog within hearing distance of the yelping, snarling combatants yearns to become a participant, and loses no time in gratifying his ambition in this respect. The code which prompts a man to lend aid to the under-dog does not appeal to the malamute or husky. Their ethics are the very antithesis of this worthy principle. When two dogs begin to fight the others do not sit

idly by on their haunches—an impression created in a widely read Alaskan novel—but the battle very quickly develops into one in which every dog in the vicinity is involved, and each deems it his bounden duty to bite and rend with all the savage ferocity of his nature at whatever unfortunate animal happens to have been thrown to the ground.

Dogs are impartial in attack, and absolutely devoid of filial regard. The prostrate canine might be their own unrespected father. The mandate of Alaska dogdom is: "Keep your feet, or pay the penalty of having your hide bitten and torn to shreds." The idea of two huskies engaging in a fight to the death, while their team-mates coolly squat in the snow and watch the progress of the fracas, like the holders of ring-side seats at a pugilistic encounter, is ridiculous.

During the summer the chief occupation of the Alaskan dog seems to be to lie down on the sidewalk or pavement and push the white man off into the mud, but he comes out strong in the winter as a sharer of hardships, an aid to transportation, a worker and a sport. Like the true Bohemian, who always is willing to share with you your own last dollar, the Alaskan dog will share with you the hardships of the trail and with equal impartiality will divide with you the contents of the provision chest. In fact, he will more than divide; if not closely watched he will eat it all.

Still, he has many good qualities. It is true that with the advent of a full moon in the sky, he makes night hideous with mournful howls; but apart from that, he is a charming companion. When disgrace or poverty overtakes his owner, he is quite sympathetic, and very tactfully pretends that he does not know there has been a change of fortune; wags his tail, jumps around, "smiles" and gives other demonstrations of cheerfulness, as though he would say: "Buck up, old chap; the worst is yet to come."

Many remarkable feats of endurance have been performed by mushers on northern trails, but a large part of the credit belongs just as much to the dogs as to their drivers. Pound-

ing the trail, day in and day out, several mail carriers have driven their teams an aggregate of five thousand miles during the eight months of the Arctic winter, and many spectacular one-day runs have been made.

FOXES

The demand for black and silver fox skins is stimulating a new industry in the territories of Yukon and Alaska, which is the home of the fox. Mining prospectors and trappers breed them for sale. When far back in the woods the prospector will erect a cabin, often near a lake or creek, for his home, and later he will trace the fox to its lair. The wily fox will have several outlets. The trapper will cautiously seek for these, and plug all but one. He will watch until the vixen—the mother fox—leaves the hole in search of food, and then dig out the whelps and bring them to his cabin. He retains them in captivity by excavating beneath and driving stakes about three feet into the ground, beneath which the whelps will not burrow. Later on, he may allow them to run about the enclosure above ground, which is secured by a high fence with chicken netting sunk about three feet in the ground underneath. The mother having escaped, is not molested. The impression is that she will remain in the district, and in due time produce another litter of whelps. The prospector realizes that a profitable industry would be wiped out if the species were not propagated. Besides, the game laws of both Canada and America are drastic, and precautions are taken to prevent the wholesale slaughter of fur-bearing animals. In fact, laws have been passed by American and Canadian authorities, prohibiting the exporting of female foxes without permission of game commissioners.

The fur of these animals killed in summer is of little value. In taking foxes out of the traps the trappers wear gloves to avoid leaving the scent of their hands on the trap, which might frighten away foxes approaching later. At Caribou, on the White Pass Railroad, is a fox-breeding farm



Black and Silver Foxes Bred in Captivity, Alaska
Gold Mining in Klondike, Ground Thawed by Steam Before Washing Out Gold

at the rear of the hotel. A sign warns visitors against interfering with them, as they are easily frightened by strangers and do not thrive under excitement.

Madam Fox is a monogamist. In her mind's eye she has her soul mate, and sometimes reaches the climacteric before finding her mate. This feature of fox life makes fox farming an uncertain and hazardous occupation. The mating question is one to be reckoned with. Madam Fox is one of the most timid and shy creatures of the animal kingdom. The same cannot be said about Mr. Fox, for he is crafty enough to make up for Madam Fox's timidity and shyness; and it is possible that from him has been gathered the reason for the expression "crafty as a fox."

A cross fox is produced by crossing the black with the red, which results in a beautiful glossy skin with a clear sign of a cross over the shoulders; in fact, it is a species very little known.

The terms used among travelers are "Granny" for the mother fox, and "Reddy" for the father.

So far as the number of whelps of each litter is concerned it is very uncertain; sometimes they have two and sometimes ten a year.

The white fox is caught along the coast of Alaska and Herschel Islands and McKenzie Coast within the Arctic Circle. It is timid and easily taken. Trappers say that one of the prettiest sights in the world is to see a number of white foxes scampering along in the snow. If startled, they will turn around and try to discover the cause of the noise. All the observer can see is a lot of black spots or balls sticking out of the snow, as their eyes are very black. Their bodies are of such pure white and there is no line of distinction between them and the surrounding snow.

Apart from the trapper's methods of capturing the fox for farming purposes—that is, for the breeders—the Indians have a method all their own. When a fox-hole is located, the noose of a buckskin thong is carefully placed over the hole and

back a few feet a squaw sitting upon her haunches patiently awaits the time when little Reynard pokes his nose above the hole, when the baby fox finds itself ensnared. Carefully its little body is placed in deerskin bags to be taken to the nearest trading-post. The utmost care is taken not to scuff the skin or ruffle the fur beyond repair, for the slightest abrasion lops off many dollars from the market value.

The feeding of foxes is not very expensive in the Yukon country. They like any scraps thrown out. A breeder at an island up near Ketchikan had several hundred blue foxes, so it became quite a task. He kept three Indians for catching and drying fish upon which to feed them in the winter. They will scamper for their meals on hearing the rattle of a tin dish. Farther north, food is often supplied from the remnants of the carcass of a dead moose or deer, out of which the Indians may have cut the choicest portions to dry. Sometimes the wild fox subsists on mice, roots and grouse, and often on rabbits.

The lynx, a native of these regions, live chiefly on rabbits, but when rabbits are scarce the lynx leave that part of the country.

The skin of the rabbit in this northern latitude is exceptionally good. The fox cannot catch a rabbit as easily as the lynx can. The lynx, being of the cat family, embrace the lynx cat, bob cat and wild cat. If teased or worried the mother will devour her young. The fox is particular in one thing about diet. It refuses to eat food which the human hand has touched, so gloves or forks are used.

A few years ago, blue fox whelps were worth thirty-six dollars each, on the ground. Back in Atlin County, British Columbia, about sixty miles from Caribou, a Mr. Brunner, a prospector, had fifteen young foxes at his place in August, 1916. Mr. Brunner's experience with grizzlies was described to me by Mr. Sparton, of Seattle, a mining man. To show how plentiful game is in this Yukon Territory I will repeat the story of his experience some months ago as told to me.

He and two mates were out prospecting for gold in different directions. He was washing a pan of dirt beside a creek when he heard a rustle in the bushes nearby, and on looking in that direction, saw a grizzly cub. He started for it, when to his horror he observed an old grizzly mother approaching. He turned and ran, but the old bear soon caught him. She seized his left shoulder in her teeth and tore it, paralyzing his arm. She then got him by the thigh and chewed that, and finally got the top of his head in her mouth. At this time one of Brunner's mates appeared, and yelled, with a view to scaring the bear away; but, instead of being frightened the grizzly made for Brunner's mate, who started for a tree and began to climb. Before he got very high the bear was alongside and with one blow of her paw knocked him down to the ground and started to maul him. She fastened her teeth in his abdomen and lacerated him terribly. About this time the third member of the party arrived and started yelling and throwing stones to attract the bear's attention—he succeeded. The bear abandoned her prospective victim and darted for the intruder, who also ran to a tree which he was fortunately able to climb and got out of her reach before she arrived. The bear remained at the foot of the tree growling for another victim until nightfall, when she trotted away with her cub. Mr. Sparton assured me that no one could have any idea of the agony these men suffered until they reached his camp, where a vehicle was obtained and they were sent on to a doctor.

The experiences of trappers in the North are very interesting. One recently told me that he carefully preserves the galls of a bear, which are purchased by Chinamen for medicinal purposes. The trapper also secures from the beaver castorium, which is a valuable base for perfumes, but the animal must be secured early in the season when the ice breaks. It is somewhat similar to the skunk's scent bag.

The trapper of the Yukon and Alaska region is not at such a great disadvantage in keeping in touch with the market

as outsiders may assume. When demands for certain skins fall off, the dealers or brokers at prominent points will advise the trader in remote positions by telegraph or wireless to outlying telegraph posts and the message is forwarded by dog mail carriers up till October, to stop trapping for the animal least in demand and make extra effort to secure furs that are likely to be popular for the next season. The trader who buys the furs from the Indians and the Eskimos will pass this information on to them and they will act accordingly.

The Eskimos are not much good for labor, as they devote their time to carving ivory. They must be pretty treacherous, as a number of them murdered two Catholic missionaries early in 1913 at Bloody Falls in the Arctic regions. A party of Canadian Northwest Mounted Police started in pursuit of the murderers and followed them for over a year till they finally arrested them and returned with them over a journey of three thousand miles across a country covered with ice and snow to Edmonton, where they arrived August 9, 1917, and where they were tried.

Dan Cadzow, from Rampart House, about two degrees north of the Arctic Circle, is one of the most celebrated Northern white fur traders. The thermometer falls to eighty-five below zero. On a clear cold night he will hear the bells on the dogs of an approaching Indian trapper a long distance off and at once instructs his Indian boy to place big logs on the fireplace and put on a kettle to make tea, to give them a warm welcome on arrival.

He described an interesting incident that occurred at Fort Yukon at the time the United States took over Alaska from Russia, and Dan MacDougal was the factor for the Hudson Bay Company. During Dan MacDougal's absence, the United States revenue cutter arrived. The officer hauled down the Hudson Bay Company's ensign and replaced it with the Stars and Stripes. When MacDougal returned, he protested and said: "I cannot allow the ensign to be removed until I get orders from the Company," which he received in due course,

with orders to burn the buildings of the Hudson Bay Post at this point.

MINING

The introduction of dredges into the mining fields of Yukon and Alaska has enabled companies to work claims that would never pay by hand labor, and also go over worked ground. In 1917 there were sixty-two dredges working Canadian and Alaskan territory, of which thirty-seven are on Seward Peninsula. The Canadian Klondyke Dredging Company in Canadian territory has four at work, each costing \$480,000. This price sounds very high, but I was assured that the difficulty of getting dredges onto the ground, and the duty charges, brought the total cost to this figure.

One dredge is fitted with seventy-nine buckets, which work on a revolving chain, each bucket weighing 4,300 pounds and capable of holding sixteen cubic feet. The record work for one of these dredges for thirty days was 413,000 cubic yards, but the general average is 12,000 yards daily. The power necessary to work one of these dredges is very great, 300 horse-power being required on the bucket line, and the screen, which is nine feet in diameter and fifty feet long, requires 75 horse-power. The pumps require 150 horse-power motor drive, and the railing stackers use 50 horse-power. The cost of dredging varies from seven cents per cubic yard on the Klondyke to a maximum of over sixty cents in the Iditerod Country, under favorable conditions, which means construction of dams, clearing and thawing the ground, etc. Twenty to twenty-five cents per cubic yard might be considered a fair estimate for working smaller dredges.

In the copper belt, embracing the Kennicott and neighboring mines and extending east and south through the White Horse District, native copper is found in gravel like placer gold.

RECORD MADE BY MARION DREDGE

WHAT the *Dawson Weekly News* calls a "smashing run" was made during the week ending October 27, 1915, by No. 3 Dredge of the Canadian Klondyke Company, operating close to Dawson. The gravel being thirty to thirty-five feet deep, with seven feet air exposed, and the ground and gravel thawed, with a soft bedrock. According to the general manager, J. W. Boyle, the record is as follows:

Operating time, hours (possible 168)	163.83
Gravel handled, cubic yards	110.045
Average per hour, cubic yards	0.674
Average depth cut, feet	30.6
Average width cut, feet	0.280
Power used, kilowatt-hours	106.000
Power used per yard, kilowatt-hours	0.96

A new bucket line was recently put on this boat, the buckets having an extra two inches on the lips, making seventeen cubic feet capacity instead of sixteen cubic feet. The dredge-master is Arthur Gibson.

The Yukon Gold Company, of the Guggenheim interests, used dredges with seven-foot buckets, raising about five thousand cubic yards daily. These buckets weigh 2,300 pounds.

From conversation with working miners and prospectors, one would think that the mineral wealth of Alaska is only tapped. On the other hand, you will find many men occupying prominent positions with mining companies who assert that the Alaskan mine fields have been combed with a fine tooth comb. The working miner does not like the introduction of the dredges. Both government and private money is being spent freely in the development of the Yukon and Alaskan mining country. It is difficult to know whether the condi-



Reindeer Herd at Nulato



Two Klondike Gold Dredges

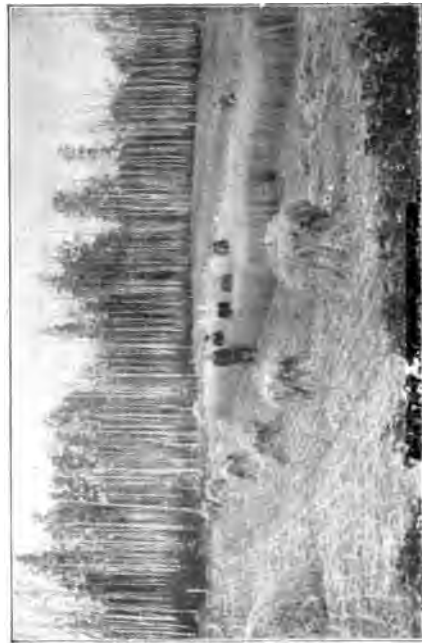


Fish Trap for Catching Salmon



Skagway

ALASKAN SCENES



Field of Oats at Fairbanks



Excursion Train Near Rocky Point



Taku Glacier



Clifton—On the White Pass and Yukon Route

ALASKAN SCENES

tions warrant a working miner facing the elements and struggles in search of fresh fields. A typical miner informed me that a man can get five months' work in summer on placer (alluvial) mines, and on dredges in the interior at four dollars and eighty-five cents and board. If he is steady, he will save enough to keep himself in food for the rest of the year. Sometimes the miners will indulge in a short spree, at the end of the season, after which the party will club together, get provisions, sleighs, dogs, etc., and go on a prospecting expedition, facing the ice, wind and snows of the Arctic wilds.

A delightful system of hospitality prevails among these hardy prospectors in the Arctic regions. On arrival at a certain point, the party will erect a cabin as headquarters, where is stored their food. From this point they will prospect in different directions, being absent at times two or three weeks. Later on, another party of mushers (traveling miners) will come that way, and are welcome to stop at the cabin, light a fire in the little Yukon stove and sleep in their bunks. If the strangers have no food themselves, they can partake of the owner's flour, beans, bacon, etc. On leaving the next morning, however, the visitors must clean up the cabin, wash the dishes and leave everything as they found it, including kindling wood to light a fresh fire.

To show that the chilly blasts of this North Land do not cool the feelings of these pioneers, I may mention that the manager of the Canadian Klondyke Company, Mr. Joe Boyle, as he is popularly known, personally raised and equipped a detachment of fifty hardy spirits in the Klondyke for service with the Canadian troops, who did yeoman service at the front.

Another act of patriotic fervor, endurance and sacrifice which deserves to be recorded in the archives of the British Empire occurred in the Canadian Arctic. In the ranks of the Black Yukon contingent were two trappers and prospectors, William Adnett and W. C. Kiddy, from Herschel Island, in the Arctic Ocean. These men had made these frigid

regions their home for many years, but when the call came, the "mushers" tramped two thousand miles over desolate wastes of ice and snow, with weather at times seventy degrees below zero, to fight for the flag. The journey occupied a year. Upon reaching Dawson, they enlisted in the Yukon contingent then being formed, and proceeded to the front.

Dawson City is one of the principal mining centers and is situated at the junction of the Yukon and Klondyke Rivers. Considerable development in agriculture has taken place, and splendid crops of hay and oats have been produced. Lettuce and celery are cultivated, and are very crisp and of remarkably good flavor. It is so cold in winter that alcohol is used in the thermometer where the temperature falls forty degrees below zero, instead of the usual mercury, as the latter fails to register. At times the thermometer falls to seventy-five degrees below zero.

Much of the country is thinly timbered with spruce, about eight to twelve inches in diameter. Meat is often supplied by various animals found in the country, such as moose, mountain sheep, caribou, rabbits, reindeer, etc., referred to at greater length elsewhere.

The Yukon River, from its mouth to White Horse, is about two thousand miles long. It is very shallow in places, but when open for navigation, boats drawing between three and four feet of water can travel up as far as White Horse. There is a delta at its mouth—St. Michael's—which spreads over one hundred miles of country, and the tide only rises six inches at this point. At Fort Yukon (Tanana) inside the Arctic Circle, the river is about twenty miles wide and it is difficult to find a channel, owing to the marshy country, and almost every year a fresh channel must be found.

A party of tourists traveling on a steamer on the Yukon in the summer of 1915 were very anxious for the captain to pass Fort Yukon at night, so that they could see the Midnight Sun. It is just inside the Arctic Circle. The Yukon River here is only three or four feet deep, and they stuck on a bar

for three days and nights; they saw plenty of the Midnight Sun.

On leaving Skagway, on our return voyage, we stopped a short time at Juneau, from where we crossed the channel to Douglas Island and visited the world-renowned Treadwell Gold Mines, which are down 2,700 feet. The company operated nine hundred and sixty head of stamps, and we visited one mill where three hundred stamps were at work. At times, four thousand men were employed in the mine. The mine was discovered in about 1880 by an old prospector named French Pete (Pierre Brussard). He later sold two of his four claims to John Treadwell, who subsequently went to San Francisco and found capital to develop the mine in the early days. The ore is of very low grade, worth two dollars and twenty cents a ton, but it only costs a dollar a ton to treat it, owing to cheap waterpower.

On the hill at the rear is an immense dam which has a natural basin formed by the contour of the mountains. This dam is fed by a ditch. It is for the most part a canal, cut alongside the mountains. The water which supplies this ditch comes from rain, melting snow and glaciers, in the mountains. Accidents, for which the mine was noted in the early days, are about eliminated. The proprietors have established more modern machinery and insist on close supervision, safety and first aid, in which the entire staff have received instructions. Various attractions to keep men happy and contented have been established. Special attention is afforded by medical men, and hospital accommodations are in charge of the Sisters of St. Anne.

A swimming bath is located here, 75 feet by 40 feet, with supplies of fresh and salt water. I could not understand the necessity for a swimming bath when there is so much salt water about, until Mr. McDonald, one of the official staff, pointed out that the temperature of the water is about 40 degrees below zero, and to prove this statement he drew my attention to icebergs floating down the channel.

On April 22, 1917, a cave-in occurred at three of these mines, allowing the waters of the Gastineau Channel to rush into their lower workings, thus forcing the abandonment of the principal mines, and throwing sixty-five per cent. of the men on the Treadwell field out of work.



PLACER GOLD MINING IN THE STREET AT NOME,
ALASKA



WRANGELL NARROWS,
ALASKA



FLOWERS AND ICE, STIKINE RIVER, ALASKA



JUNEAU, THE CAPITAL OF ALASKA

GOLD DISCOVERY IN YUKON TERRITORY

DIFFERENT persons are credited with the discovery of gold in the Yukon Territory. Mr. William Ogilvie, Canadian Commissioner, stated that a missionary who died at Fort McPherson two generations ago while laboring among Indians found gold in Birch Creek. He also stated that young pioneers from Toronto traveled five thousand miles in the *Northland* in 1859, prospecting. Their names are not disclosed, although he mentions the McKenzies, McPherson, McDonalds and Campbells, which shows that Scotchmen had all the good jobs even in those days, in the Hudson Bay Company. Many claims returned from half to one million dollars. Mr. Ogilvie's conclusion was that there were sixty claims on Bonanza Creek and forty on Eldorado, that would average not less than \$100,000 per running foot.

The very rich discoveries in the Klondyke district (Yukon) were credited to George Washington Cormac and his two Indian mates, Skookum Jim and Tagish Charlie, in the winter of 1894-1895. Cormac was known as the "squaw man," on account of his having married an Indian woman. Jim wandered some distance away, looking for game, and succeeded in shooting a moose. While waiting for his mates to join him, he started prospecting in the creek and found gold in greater quantities than he had ever seen it before. Disputes arose as to whose name they would apply in, to record the claim, Cormac asserting that no Indian would be allowed to obtain it. It was finally registered in Cormac's name. He transferred one-half to Skookum Jim, who died later in poverty.

Credit, however, as being the first discoverer of gold in the Klondyke, is given to Robert Henderson, and he now receives a pension of \$200 per month from the Canadian Government in recognition of his discoveries.

So many spring up claiming to be the first discoverers of gold in the Klondyke, that I took considerable pains to trace the results accomplished by pioneers.

In Alaska, through Mr. J. L. Stewart, I got in touch with Mr. Sime, assayer for the Canadian Bank of Commerce at Dawson City, Yukon, in the early days, who gave me much valuable information on this question.

YUKON TERRITORY OF CANADA

In the winter of 1895, Henderson was prospecting on the creeks in the water-shed on Indian River, twenty-five miles from the Klondyke and crossed the Divide into Gold Bottom Creek, a tributary of Hunker Creek. At this point he found a two-cent prospect of gold, and this is the first gold that is known to have been discovered in the Klondyke proper. Henderson doubled back to Ladea's Pass on the Yukon for supplies. He returned in the summer of 1896 to Indian River and found the water too low to proceed up stream. He therefore concluded that Gold Bottom Creek flowed into a tributary of the Yukon River below Ogilvie, and proceeded down the Yukon to its confluence with the Tron Dog River, or what is known as the Klondyke. He there met Cormac and two Indians; and, in accordance with the usual custom of honest miners, Henderson announced the discovery he had made, inviting all parties to stake claims on Gold Bottom. This they did, near Henderson's ground. Later on, Cormac, on Henderson's advice, prospected what is now known as Bonanza Creek, with the result that he made the famous discovery of gold. Instead of informing Henderson, however, Cormac proceeded to the Recording Office, filed his claims, and Henderson never heard about it until informed later by some stampers from Forty Mile, who found their way over to Gold Bottom from Bonanza Creek. Owing to Bonanza turning out so rich and having been discovered by Cormac, he is often given the credit of being the first discoverer of gold in the Klondyke.

Probably never before in the history of gold-mining has there been such a rush of people as was seen in that stream of fortune. Seekers who climbed the Chilkoot Pass, pressed on to Lake Lindeman, thence on a journey of five hundred miles down the Yukon River to Dawson, which at one time had a population of 30,000. Mr. Sime states that the gold production about Dawson reached its maximum in 1900, when it exceeded \$22,000,000. Between 1898 and 1905 over \$100,000,000 was taken from placers (alluvial) at Bonanza, Eldorado, Hunker, Dominion Sulphur Creek, and other tributaries.

Mr. Sime refers to Robert Service, author and poet, who did so much to immortalize the Klondyke.

After leaving the Canadian Bank of Commerce, in which he was officially engaged, Service repaired to a small log cabin on the hillside near Dawson, where he did most of his literary work. In smoking concerts and on other occasions Service would often favor the company with poems. They were very clever and original, but not always published.

Mr. Sime holds that Service's work, "Parson's Son," contains the best description of life in the Klondyke in early days, and he quotes the following lines from that work:

"Oh, those Dawson days, and the sin and the blaze,
And the town all opened wide,
If God made me in his likeness, sure he put the devil inside.
But we were all mad, both the good and the bad;
And as for the women, oh, well;
No spot on the map, in so short a space, has hustled more souls
to hell."

Portions of Alaska have been found to be equally rich in many precious metals. It is claimed that when communication by rail is established with the coal mines, Alaska coal can be delivered in San Francisco for \$8.00 a ton.

TANANA—Tanana River, and the city of the same name, possesses many points of interest. Mines in the vicinity of Fairbanks on this river produced nine million dollars' worth of gold annually for seven years. At the junction of the

Tanana and Yukon Rivers is situated Fort Gibbon, garrisoned by United States troops. Some distance from the mouth of the Tanana River are hot mineral springs, which rival, for curative properties, the celebrated hot springs of Yellowstone Park and Rotorua, New Zealand. In the vicinity of these springs, the ground is so warm that many crops can be raised. Tanana Settlement was founded in 1838 by a half breed Russian, and in the early days was the scene of many Indian uprisings. As far back as 1851 it witnessed the murder of Lieutenant Bernard and two junior officers of the British frigate *Enterprise*, who were sent in search of Sir John Franklin, the Arctic explorer.

NOME GOLD—An account of gold mining in Alaska would be incomplete without a reference to finds on Anvil Creek on Seward Peninsula, near Nome, which were made by three Swedes in 1898. Later on they organized the Pioneer Mining Company, which has taken out \$6,000,000 worth of ore. They own 3,000 acres, 300 of which will produce \$25,000,000. Only time will tell what the whole area will produce.

In the early days, the only means of winning the gold were crude enough. Owners of the type of Lindeberg, Byntenson and Lindebloom melted the frozen earth and washed it out by hand. Since then, however, securing the gold has been made rapid and easy by hydraulic sluicing, as is shown in the accompanying illustration.

Shortly after the find at Anvil Creek, payable gold was discovered in the sands of the sea near Nome, by an American soldier, who only worked it enough to make a little pocket money. More or less success attended the beach-combers seeking gold among the sands, but as many miners lead a free and happy existence, an exact estimate cannot be made of the metal won. Even at this date, when old miners on Seward Peninsula feel themselves in need of a little money, they can repair to the sand of the sea-shore and with the aid of hand rockers, make a few dollars daily.

SEALS IN BEHRING SEA

IT was a great bargain day for Secretary Seward of the United States, when he completed the deal with Russia which turned over that vast expanse of Alaskan territory to Uncle Sam. For, with the wealth of gold and other natural resources that went in with the deal, there was, at that time, no consideration given to the sealing industry; a rich heritage for many years, although now sadly depleted.

Countless thousands of dollars have been reaped from the rookeries of Alaska, where the fur-seal made its home. Romantic are the stories that could be written of the early days of the whaling fleets, that made their ways north from Victoria, British Columbia, and strange and startling the experiences of the men in charge of the trim little schooners that fought their way through storm, wave, and bergs, to the habitat of that muchly prized swimmer of the Northern Seas, to provide the glad raiment for milady.

Twenty years ago this industry flourished with an utter abandon of thought of the time when it would be a thing of the past. The slaughter of countless thousands of seals, the deaths of countless thousands of little ones, and of the yet unborn, forced international action; and a special commission was named to inquire into the subject and make a report that would give promise, at least, of a continuance of this great and rich Northern industry. What was done is now a matter of history.

The most important rookeries of Alaska are on the Pribilof Islands, and, although seals range over the spaces of the Western Seas, it is not known where they come to land, excepting on these and other Northern islands. They feed over a radius of about two hundred miles, and the study forms an interesting chapter in a narrative of this wonderful country.

The male seal reaches full maturity at about seven years, and weighs from four to five hundred pounds. The female is much smaller, weighing about eighty pounds. During breeding time the females congregate in "harems," each male having from thirty to one hundred females in his charge. The young male, known as the "bachelor," is not permitted to come near the rookeries during the breeding season, being kept away by the watchful eyes of the "bull," who preserves his position as lord and master of the "harem," and must remain without food during the entire time of the breeding season. His services are required over a period of sixty days; and as fast as one "cow" leaves the rookery, her allotted three feet of space is taken up by another.

It was the slaughter of these fur-bearers that brought about public condemnation. Natives, as well as white hunters, raided the rookeries, and with clubs fairly waded about among their helpless victims, maiming and bruising as many as they killed. No notable changes in the habits of the fur seal have resulted from any action of man. It is not possible for man to drive away the fur seals from any of their haunts except by killing them all. Pelagic sealing, in the opinion of the International Commission, headed by Professor David Starr Jordan, was the sole cause of the continued decline in fur-seal herds. The chief cause of death of the females on the rookeries is caused from the wrangling of the "bulls," and in the struggle of the reserve of idle "bulls" to steal "cows" from the "harems." It is authoritatively stated that in 1896 more than 10,000 "pups" were trampled to death on the Pribilof Islands by the rough work of the "bulls" in their struggle for possession.

Pelagic sealing is now, of course, a thing of the past. The big fleet which used to make its way north, lies idle in Victoria harbor, or at least a great part of it did until the demands of the war made desirable every bottom which could be put to use and had a spar left from which a sail might swing.

Owing to the fact that they do not swim at depth, the food of the fur seal is taken from the surface. Small fish and squid make up the bill of fare; and they remain in the water until their food is digested. The nursing fur seal rarely feeds any but its own "pups"; and, despite the tricks of the orphans to steal a bit of milk, they are ever on the alert. She has the greatest affection for her own offspring; but is positively savage in the way she treats any other. They are easily fatigued when on land, and often become overheated; their skins being underlaid with a thick mass of blubber almost to the tail. However, they have their own way of cooling off, even in these Arctic climates. This is done by lifting their hind flippers in the air and deliberately fanning themselves.

What the glories of the seal hunt were twenty-five years ago may be slightly understood when it is known that in 1896 there were sixty-eight Canadian ships and twenty-one American vessels all engaged in this trade in Alaskan, Japanese and Russian waters; Canadian ships taking in that year 56,380 skins, and American vessels taking 11,560 skins. The trim little schooner *Casco*, formerly owned by Robert Louis Stevenson, was one of the Canadian ships engaged in the sealing trade. This ship later was used by the Boy Sea Scouts as a training ship, near Vancouver, B. C. It was aboard the *Casco* that Stevenson wrote many of his stories. On it he sailed the broad Pacific in search of health. The *Casco*, while she was in commission, brought back 1,010 skins. The London market price at the time was about eight dollars per skin.

Fears expressed years ago that the seal was doomed to extinction have not been borne out; but it is true that their numbers have been so sadly depleted as to give some anxiety for the future. Doubtless during the early days of the pelagic sealing, for every seal taken there was another killed or fatally wounded, and never recovered. It is said that on one of the Russian islands, Tolstoi, the ground is covered with the bleached bones of "pups" for which there was no market value, the skin not reaching that maturity which makes its fur to be

prized. Fashion's whims, too, have had much to do with the industry. The price of a sealskin coat that once could be bought for a few dollars now staggers the average man. In spite of this, there is a constant demand on the London market. There was never but one attempt to take a census of the seal herds of the North, and that was in 1874, when Mr. Henry W. Elliott, by careful observation, declared that the inhabitants of the Pribilofs numbered a total of 3,193,400 breeding seals and pups, or about 1,000,000 breeding females. The period of gestation is 355 days. One "pup" is born at a time. There is no record of the birth of twins. The male seal is capable of procreation at the age of three years, but he is not permitted by his seniors to take charge of a "harem" until at least seven years old. The "bulls" arrive at the breeding stations in early May, take up their positions and await the coming of the females. This event is accompanied by constant fighting among the males. The females come on land but a short time before the delivery of their young, after which the "bulls" hold the "cows" in the "harem" until after impregnation, when they again seek the sea, returning at intervals to feed their "pups."

Recent developments in the fur product have resulted in advantages to the United States. In previous years all Alaskan seal-skins were salted and shipped to London for curing, dyeing and dressing, English furriers holding the secrets of this process. London, as a consequence, controlled the fur market, and buyers from all parts of the world attended the sales there. After the World War broke out, the Funston Fur Auction Company purchased the principal seal treating plants and transferred the same to St. Louis, America, permission being secured to take over from England fifteen experts to instruct Americans in the treatment of raw furs. The result has been to make St. Louis the leading fur center of the world. A new process has been discovered for dyeing seal-skins which makes them more beautiful and pliable.



Seward, Terminus of U. S. Railroad



Valdez and Its Picturesque Background



Anchorage



Holy Cross Mission, Yukon River

ALASKAN SCENES



Steel Bridge Near White Pass



Three Totems, Sitka



A Prospector



Wireless Station, Eagle City



"Big Horn"

ALASKAN SCENES

ALASKAN GAME

FROM the tiny mosquito to the stately moose and the ferocious Kadiak Bear, Alaska is the home of game of many kinds. The word "game" is not applied to mosquitoes in the sense that these insects are good to eat, though often enough they manage to mix themselves in with the cuisine of the woodsman; but in the sense that they are imbued with a nasal, buzzing voice that is more irritating and nerve-racking than the cry of the lone timber wolf, and a "bill" that some miners declare has greater boring force than a diamond drill. A prospector in British Columbia once told the story that on the Liard River he spread a paper in the bottom of his tent and swung his hunting knife through the air. This loquacious chronicler declared that he killed seventeen mosquitoes at the first pass. He averred also that the atmosphere in that locality was so full of mosquitoes that the only way for them to increase their numbers was to reduce their size. But proper immunity may be had from these pests.

Despite these disadvantages, no portion of the North American continent presents a better field for the sportsman than does Alaska. It matters not to what part of Alaska one goes, game is everywhere. But the big game-hunter should bear in mind that Alaska is a tremendously large territory, and that the species of big game which can be found in one region may not necessarily be found in another. For instance, the game found in southeastern Alaska is entirely different from that found on the Alaska Peninsula or on Kadiak Island, and again the game found in the lands edging the Behring Sea and the Arctic Ocean is different from that found in other places. He should also remember that the only part of the country

where the law forces the hunter to take a guide is in the Kenai Peninsula regions.

The moose is the largest hoofed animal of North America, and the best specimens can be obtained on the Kenai Peninsula, on the upper waters of the Yukon, in the country surrounding Mount McKinley and in the valleys of the Kuskokwim and White Rivers. Moose is easily stalked during the early summer, when the mosquitoes force them out of the brush into the river and lakes. Some of the pools contain alkali, and here the moose and other wild animals are found. In winter they are an easy prey to the hunter equipped with snowshoes, for when chased out from cover they sink belly deep into the snows, and even with an hour's start on a man, they are not hard to capture. After the running season the male generally remains in the higher altitudes, while the cow and calf are to be found about the lakes and streams.

Of the fur-bearing animals, the bear is easily the largest. His domain is from the southernmost to the northernmost parts of Alaska. In southeastern Alaska the black bear is the more common, while around southwestern Alaska the brown bear is indigenous. Another variety of the brown bear, known as the Kadiak, has its habitat on Kadiak Island; the silver-tip or grizzly lives along the coast or in the interior; the glacial bear inhabits the glacial moraines, and the Polar bear lives among the ice floes of the Arctic Ocean and occasionally the Behring Sea. When an unarmed prospector meets a bear on the trail, he regards it as being in conformity with the best usages of wilderness society to give him a wide berth and the right-of-way. Brown and silver-tips are highly prized by hunters, but the glacial bear, because of its finer fur, is considered one of the best specimens of the genus *Ursus*.

To hunt the Polar bear successfully, one must leave Nome to the northward of the Aleutian Islands early in the spring, and follow the ice fields in their northward journey into the Arctic. If the wind blows from the westward, the bears are carried across the Northern Ocean toward Alaska on the floes,

and one or more generally will be seen in a hunt of a few days. In any event, the hunter in this region is fairly sure of some good sport in walrus hunting.

Captain Louis Lane, of Nome, who has probably killed more Polar bears than any other man alive, is authority for the statement that the Polar bear never leaves the ice floes. It does not, therefore, go into a hole in winter, as other members of the bear family, but by following the ice pack, gets its living from the seal and fish.

Much resembling a miniature bear is the wolverine, whose black coat and orange-colored sides gives one the idea of a colossal skunk. It is shy and is said to be the strongest wild animal of its size—that is, a yearling cub bear. Small deer have practically been exterminated from southeastern Alaska by wolves driven from British Columbia by bounty hunters. There is also the lynx. The gamest and most courageous animal for its size in all Alaska is the syoat or ermine. Smaller than an ordinary-sized ferret, he is capable of slaying a rabbit or Arctic hare many times his size. He will often carry away a frozen fish many times his size and weight.

The rabbit, like the ptarmigan (a bird), changes his coat to suit his environment. One peculiarity about the rabbits in Alaska is that every seven years they seem to disappear, and it is believed they migrate over into the Peace River country, north of Alberta. When rabbits are plentiful, moose and other animals are scarce. It is ventured as an opinion that the rabbit in large numbers is to the moose feeding grounds what the goose is to the sheep grazing lands.

There are five varieties of foxes: red, cross, silver-gray and black and blue, and the common white, found in the upper northern stretches. Mink, otter and other small game are quite abundant. Crane, ducks, geese, plover, snipe, curlew, brant, are found in practically all parts of the country. There are ten different species of wild duck, five of grouse and two of ptarmigan. In a country so filled with game birds, it must be un-

derstood that there are many birds of prey. Eagles, hawks and many varieties of owls abound.

Speaking broadly, one may hunt almost any part of Alaska and be reasonably sure of finding good sport. Kenai Peninsula offers great attractions. An excellent hunting ground, offering almost every variety of game, can be reached by crossing Scolia Pass from the interior and of Copper River and the Northwestern Railroad to the head of White River. The Kuskokwim, Susitna and Tanana Rivers also are good, as well as the territory about Mount McKinley.

To the prospector, the animal next in importance to the moose, because of its food value, is the caribou. There are two varieties of caribou—the woodland, found in small herds of five or six the year round in the timber-sheltered foothills; and the caribou of the plains, that cross the barren tundras in their countless thousands, roaming northward in summer and returning southward as winter approaches. It is estimated by well-informed men that there are more than three million of the latter variety in the barren lands of the North. In many of the southerly latitudes they have been all but exterminated. Wanton slaughter by the Indians followed the introduction of the rifle on Unalaska Island. This is true also of Seward Peninsula.

Other hoofed game in Alaska includes mountain sheep and goats. The hunter seeking these trophies must be endowed with physical prowess. The goat is the larger of the two, but the meat of the sheep is more to be desired by epicureans.

As to fishing for trout and other game fish, there seems to be no end of this form of sport in any part of Alaska. The fishing season is open all year. The big game season opens on August 1. Hunters must be licensed. Licenses are obtainable at Juneau; the price is \$50 to Americans and \$100 to aliens. This does not apply to the prospector or miner.

THE REINDEER INDUSTRY

A few years ago, before people became used to "war prices," and meats took a skyrocketing jump, there was a suggestion made by some dreamer that the swamps of Florida could be made useful by stocking them with hippopotami, the flesh of which is toothsome. Few people realize that in Alaska there is rapidly being built up a meat industry that is destined to become a most important economic factor, viz., the marketing of reindeer meat. It was quite a fad in Seattle only three or four years ago to have reindeer meat on bills of fare at the best hotels. Prices compared favorably with those of the tenderloin of beef and the average cuts of mutton. Reindeer meat is more succulent than beef or mutton. From neck to hoof, the meat of the reindeer is tender and its flavor is delicious. It has been described as a cross between beef and mutton, with a suggestion of venison.

Stretching from the northern bank of the Yukon to the Arctic Ocean is the greatest reindeer grazing land in the known world. The number of deer which this land will support is almost incalculable. Dr. Brenfell furnished the information that the country north of Hudson Bay will support ten million of these animals. The United States Government furnished him with a few head, to form a nucleus of the herd. The Russian Government did not permit the sale of any more. In all, there were twelve hundred and eighty deer imported to Alaska across Behring Strait since 1893. Their breeding was placed in charge of Laplanders. The purchase of reindeer, like the purchase of Alaska by the United States, was regarded as a wilful waste of public money, and the Bureau of Education was hampered. But from these few deer the herds have increased until, in 1913, the latest available report, the total was thirty-five thousand, and in the meantime they had converted natives from poverty to affluence. There are now forty-seven herds in the territory, more than half of them being owned by Eskimo herdsman. No one realized that the first herds im-

ported were to become the nucleus of a big industry. Regulations governing it were placed in the hands of W. T. Lopp, by the United States Interior Department in 1907. Mr. Lopp's twenty years' experience with the natives qualified him for the job. It was desired to advance the natives from the hunting to the pastoral stage and to provide a food supply to take the place of seal and blubber and the caribou, which had been driven so far north as to become inaccessible. It is now estimated by men who are familiar with the reindeer business that with another decade or two a herd of at least two million domesticated prime animals will have been accumulated in the country.

Reindeer can be raised for the market more cheaply than cattle. They will dress from one hundred and fifty to one hundred and seventy-five pounds. They thrive on tundra wastes, where a goat or other animal would starve. There are more than three hundred thousand square miles of land available for grazing. The reindeer digs beneath the snow in winter and eats the moss, and in the summer eats grass and foliage. Like cattle, it fattens on the summer range and grows poorer in winter. The reindeer is a good pack animal under certain conditions, but in the presence of dogs is flighty. Being indigenous to the country, the deer has been provided by nature with a foot especially adapted for traversing land covered with deep snow. Having a wide foot with hollowed out hoof, it does not sink deeply into snow.

Wolf dogs have been a serious menace to the management of the herds, and also a cause of friction between natives who own reindeer and those who do not. In recent years the natives have imported Collie cattle dogs from Scotland, and in some cases have crossed them with Malamutes. These dogs soon become accustomed to deer. The one great danger to the deer is the wolf. With the exception of a little hoof rot, which sometimes makes its appearance, there is no disease among the reindeer. Prompt cure is sure to follow the driving of the herd into drier pasturage. When the reindeer becomes

plentiful enough to provide relays every four or five days, it will become something of a factor in the transportation problem of Alaska—but by that time it is likely railroads will supplant any necessity for its use.

The total number of reindeer is distributed among twenty-eight stations in Alaska, eighteen of these being owned by the United States Government and ten by Church Missions. The Lapland reindeer herders own more than thirty-five thousand deer. Several natives who received payment in reindeer for services given the Government at stations, have become independently rich, as far as riches go among natives. Mary Antisarlock, known as the "Reindeer Queen" of Alaska, has a very large herd at Golovin Bay, while Ablakok, who lives at Cape Prince of Wales, carried the proud title of "Reindeer King" of the section in which he lives.

The Government does not sell any female deer to the natives or white men. Stations are also to be established at Kadiak and Nuhavik Islands. Reindeer are branded as horses are. Their skins are used for purposes of clothing. The creation of this industry in Alaska was not by accident, but by means of careful and patient study.

THE NORTH'S GREAT SPORTING EVENT

Short distance dog races and deer races, however, while highly amusing to the native, are but the hors d'œuvres in the satiation of the Caucasian appetite of the north for sport. The big event of the year is the Annual All-Alaska-Sweepstake dog race from Nome to Candle Creek and return, a distance of four hundred and twelve miles. This event is a unique, thrilling contest—a contest of strength, speed, endurance, courage and judgment. It is an event in which all men, women, children and Eskimos are interested. It is not unlike the horse race for the Melbourne Cup. For months before the race the entire population "talks dog." Other subjects of conversation are tabooed. During this period the animals scheduled to take part in the struggle have the time of their lives. They are carefully

trained and fed upon good steaks and other choice cuts of meat. The intense interest in the sport may be judged from the fact that when, in 1909, a race dog wantonly killed thirty-five sheep that were browsing on the hillsides, and the owner of the sheep sued the proprietor of the dog, the jury promptly returned a verdict to the effect that "Alaska is a dog country, not a sheep country," and that, therefore, the sheep-owner was not entitled to damages. The dog-racing enthusiast pleaded the "unwritten law," and the jury by their verdict obviously agreed with him in the far-fetched theory that the sheep must have been the aggressors in the conflict.

During the period of eight months when the residents of northwestern Alaska are cut off from the civilization of the United States by the ice that covers Behring Sea, dog-racing becomes a matter of real importance. Several short races are held during the winter, but early in April, when daylight is good, the Annual All-Alaska Sweepstake is staged. While this event is in progress all business is absolutely suspended. The shops, stores, schools, courts and every other place of business, with the exception of saloons, of course, are closed.

It is doubtful whether there is any other sport in the world that contains so many elements of danger and calls for such endurance and judgment. Across treeless tundras, frozen streams and rugged divides, along the icy coasts, and often in the face of blinding blizzards, the competitors, men and dogs, struggle for supremacy from start to finish. The course is along the shores of Behring Sea, over the Topkak Divide to Council City, along Fish River to Death Valley, across the valley and down the Keewalk Candle Creek and return by the same route. It is a trail bestrewn with many obstacles. The time consumed is generally about eighty hours, during which nobody sleeps. The 1911 and 1912 races were won by A. A. ("Scotty") Allen, who drove a team owned by himself, and Mrs. C. E. Darling, a Californian writer of verse and short stories.

While the race doubtless is sufficiently exciting for the

competitors, it is not all that could be desired from the standpoint of a spectator. To a considerable extent, it is a matter of mathematics and sustained effort at computation. The teams start fifteen minutes apart and the one that covers the course in the least time is adjudged the winner. The process of witnessing the big dog race at Nome is about as follows:

With his coat well-buttoned up and the ear-laps of his fur cap pulled down to keep out the frost, the onlooker walks from the main street of the town to the ice-covered shore of Behring Sea, where with a number of others, all of whom are excitedly "talking dog dope," he stands around in the cold for a few minutes and then hears a shot fired. This is the signal for starting. Immediately afterward the spectator sees a streak of dog, man and sleigh vanish down the coast and slowly melt into the scenery where the snow and sky blend. Then he returns uptown, warms his hands at the saloon stove, and fifteen minutes later returns to the ice-covered sea, hears another shot and watches another team go streaking across the frozen trail. He repeats this performance ten or twelve times, or until the last team has started. Then for three days and three nights he stands around the black-board in one of the various saloons, leaving only long enough to grab an occasional hasty meal at a nearby lunch counter, and with pencil and paper computes the positions of the different teams as reports of their progress are received over the long-distance telephone. Before the race is finished he has as many figure-covered pieces of paper as a busy book-maker's clerk at a race-track. A few of his figures have to do with the bets he makes as the race progresses, but otherwise they pertain entirely to mileage and the effluxion of time.

The spectators must also be endowed with a certain power of endurance. Once in a while an onlooker leaves the black-board to 'phone the reports to his home, where more than likely his wife and a dozen other women are foregathered, each of them busily engaged in figuring out the positions of the different teams and speculating as to the winner.

On the second day, when the teams are on the return journey, the interest increases, and by the time the teams are twenty miles from Nome the excitement becomes intense, especially if the racers are only a short distance apart, according to time. When the leading team passes Fort Davis a cannon is fired, and everybody, excepting those in the hospital or otherwise incapacitated, immediately finds a nice cool perch on the ice hummocks of Behring Sea, where they excitedly wait till the winning teams stagger and limp across the line. The driver of the winning team is raised shoulder high and carried to the Arctic Brotherhood hall, where a wreath is placed on his brow, and after the ceremony is over, he is rushed to a Turkish-bath house.

It must not be thought, however, that the drivers, owners, or spectators engage in this strenuous sport solely for the honor of winning. The prize usually is \$10,000 in gold and a massive silver loving cup; and an aggregate of about \$200,000 in wagers on the result. Of course gambling is against the law of Alaska, but wagering on a dog race euphemistically is termed "backing one's judgment," which is entirely different from gambling! It is more like dealing on the stock exchange.

Dog-racing, besides having within itself all the alluring elements of chance that are essential to its popularity, requires the exercise of judgment of the keenest order. One of the rules of the Nome Kennel Club, under whose management the contests are held, is that every dog must be registered at the start, and that the driver must return with the same dogs, dead or alive. Therefore, it is necessary that the owners and drivers shall choose dogs possessed of equal speed and endurance. If any of the dogs break down or die from exhaustion, they must be carried on the sled, and thus they prove an impediment to their team mates. Lack of judgment in this respect has lost many races and many big wagers. The Nome Kennel Club was founded by Albert Fink, a lawyer, ostensibly for the purpose of improving the breed of the dogs in the country during the winter, to transport miners and supplies from one part of

the country to the other. The development of dog-racing was incidental. It was never thought that this sport would come to be ranked of the same importance in Alaska as is the competition for the baseball pennant in the United States.

Many different kinds of dogs are bred for racing purposes, and speedy animals bring high prices. Those of sufficient class to compete in the Derby of the North are sold for as high as \$250, and as much as \$1,200 has been paid for a good leader. The general plan of breeding is to cross one of the well-known species of speedy dogs with the native malamute or husky. Among the breeds most favored are the Missouri bird hounds, Great Danes, Airedales and Russian stag hounds.

The Siberian dogs imported into the territory by the Honorable Fox Ramsay and his partner, Colonel L. Stuart Weatherly, which won a sensational race in 1910, and broke the time record, are small animals with a trace of the fox in their makeup. Their appearance is that of a miniature wolf-dog. The bushy tail, the thick hair, and the strong legs, are all there, but the pupil of the eye is elliptical, and this fact leads to the well-grounded suspicion that their ancestors belong to the Reynard family. These dogs are not fast, but possess wonderful endurance, usually making the four hundred and twelve miles journey with but two or three hours' rest. The malamutes and huskies and all their crosses are faster, but they lack the qualities of endurance possessed by their Siberian cousins.

Racing and working dogs are fed but once a day. They are given their meal after the day's work is done, and then they lie down in the snow to sleep like tired children. If a storm arises, they allow the snow to blow over them and, buried beneath it, they sleep comfortably until morning. If their food is too hot, they pull the vessel containing it into the snow or onto the ice and test the temperature with their long tongues until it is cool enough to be eaten without scalding. In summer they forage for themselves, catching ptarmigan, rabbits, ground squirrels and other fauna.

This desire to hunt sometimes causes trouble for the mail

carrier or the musher. If a dog sights a flock of ptarmigan or rabbit, he gives a peculiar howl, which acquaints his team mates with the fact, and then helter skelter the entire team races after the game, dragging sled and driver behind them. It may sound like a fish story, but it is nevertheless true, that Alaskan dogs when pressed by hunger, will go fishing, wading into the streams and standing like statues on the river bars until they espy a salmon wriggling up over the shallows. Then like a flash they jump for the fish; usually the struggle is brief and the dog generally wins.

In summer a few Alaskan dogs become afflicted with hydrophobia, which is highly contagious if they bite another of their own species. But there has never been recorded in the Territory a case of a human being dying of rabies. This malady causes the dogs to rush along, snapping their jaws and biting at their own spinal columns, meanwhile frothing at the mouth and displaying other symptoms peculiar to a mad dog.

ALASKA—A \$7,000,000 PURCHASE

Much adverse criticism was aroused by the American purchase of Alaska from Russia, for seven million dollars, in 1866. It is questionable whether it would ever have occurred but for the friendly relations which arose during the American Civil War of 1861-65. Even in the Northern States there were bitterly hostile critics of President Lincoln's administration who attributed the purchase of Alaska as Secretary Seward's folly. An alliance with Russia was openly discussed by the American press at the time. It was at this period that cruisers were being fitted out in Great Britain to assist the Confederacy, which caused the United States great alarm and trouble.

Without waiting for any invitation, the Czar, in 1863, sent a fleet of five men-of-war into American waters, determined that if war arose between Great Britain and America, the former would not have so easy a time as she did in the Crimean contest. The residents of New York extended a grand welcome to the officers of the Russian fleet and tendered them a

ball. October must have been a dry month, as the dancers consumed thirty-five hundred bottles of wine. The Russians, in return, gave a reception on board their flagship, *The Alex. Nevski*. Strange to say, the guns aboard the Russian vessel were of American make, having been cast in Pittsburgh.

ALASKA FISHING

The Tanana River is well represented in the salmon fishing industry. In addition to nets, a unique device, the trap wheel, shown in the illustration, is used for catching the fish. The wheel is made of bamboo frame and network, and propelled by the current down stream. It scoops up the fish as they approach and shoots them into the boxes provided on either side.

Mr. William S. Thomas describes the habits of the shoals of salmon bound for the spawning ground at the head of Gravena Bay, about one hundred miles from Valdez, where game abounds in plenty. On hearing the shot of a gun the ducks would try to escape by diving, only to find that the salmon were so thickly massed that they could not get below the surface of the water. People have sometimes found it necessary to tread on them in crossing a stream.

The fish root their noses into the sand and gravel where the females deposit their eggs, which the male covers with a milky substance. At times two males and two females will fight each other with their tails to gain possession of a hole into which the spawn can be deposited. So plentiful are they that the Indians have dogs trained to wade in and catch the salmon, which requires a pretty agile dog to be successful, as the fish can dart between their legs and out of reach.

SHIP SUBSIDIES

AS subsidies for carrying mails are necessary in maintaining ships to navigate the Pacific, I will refer to them here. Of course, shipping people will understand them without much explanation, but the figures I give may be of interest to people living inland.

It would require several chapters to do justice to the question of ships' subsidies, so I will confine myself to a few of the leading routes. Strange to say, American and New Zealand steamship companies who have striven to maintain communication have been most shabbily treated by the governments of the United States and Australia. Of course, I realize it is a bitter pill to ask Australia to subsidize foreign ships. She was so circumstanced, however, that it would have paid her to have made some sacrifice and to contribute toward maintaining communication with Europe via the United States and Canada. Singular to relate, Canada, who has the least to gain by communication with New Zealand and Australia, has been most generous in subsidizing steamship service.

While some countries pay handsome mail subsidies, they also insert a penalty clause in the contract by which a steamship company is fined twenty-five dollars per hour for each hour of arrival behind schedule time. The desire of a government for steamers to carry a country's products to a distant market at a low rate of freight enters largely into the amount of subsidy given. In 1899 an agreement was entered into with the Union Steamship Company for carrying mails between

Sydney and Vancouver, via Brisbane, when the following amounts were paid:

New South Wales	\$50,000.00
Canada	125,000.00
Fiji	7,500.00
Queensland	35,500.00

In 1903, a fresh agreement for two years was entered upon between the Commonwealth Government and the Union Steamship Company as follows:

Canada	\$170,450.00
New South Wales	68,150.00
Queensland	51,135.00
Fiji	10,225.00

In 1905 a new contract was made, and the Australian Government increased the subsidy \$133,130 for a year; this sum was apportioned among the six states.

Under the above subsidies, the Vancouver boats went via Brisbane, cutting out New Zealand. In May, 1910, New Zealand asked to be included as a port of call at Auckland, offering to subsidize the line to the extent of \$100,000 per annum. Canada was also desirous for Auckland to be made a port of call. The Vancouver service covered seventeen round trips for the year.

The Australian Commonwealth appears to have declined this offer and the result was that Canada and New Zealand entered into an agreement with the Union Steamship Company for a five years' service, touching at Honolulu and Fiji. This service is still maintained. The boats, however, proceed to Sydney. As a condition of her paying \$100,000 annually, New Zealand obtained preference over all cold storage and ordinary freight capacity of the boats. The wisdom of this was proved many times during the war.

The Commonwealth of Australia since its inauguration has never been a party for a mail contract between Sydney and San Francisco, and has had no contract for a mail service with Vancouver since the termination of the one referred to.

Much of the unremunerative conditions of the trade, I know from long personal observation, but for many of the figures I supply of subsidies paid, I am indebted to M. J. Oxenham, Secretary, Postmaster's Department, Melbourne, and M. J. Young, Deputy Postmaster General, Sydney.

Compare the subsidies paid on the Pacific with those paid the P. & O. and Orient Steamship Corporations from Australia to London, whose route lay through the Red Sea and Suez Canal.

In pre-war days, Great Britain is credited with paying the P. & O. Company \$1,750,000 per annum, of which amount the company allocated to the Australian service \$400,000.

Between 1905 and 1910 various amounts were paid by the Australian Government to the Orient Company for conveyance of mails between Adelaide and Brindisi. On February 3, 1910, the Orient Company submitted a tender for a fortnightly service for ten years at \$860,000 per annum, and this was accepted—time of journey six hundred and thirty-eight hours. It is well to consider that this Inter-Empire route touched at ports of densely populated countries like India that were feeders of passengers and freight. This patronage added to the income of the British boats, while the island passenger list on the Pacific is very small, except at Honolulu.

No ship floating a foreign flag was permitted to carry passengers out of Honolulu for a United States port.

All ships of most countries must give notice of intended departure and accept mail rates, which are fifty cents per pound for letters. These sums are often paid by a government that pays no subsidy and may be added to the subsidy paid by some other country.

The Union Steamship Company, of New Zealand, runs a monthly line of steamers between Wellington (New Zealand) and San Francisco, via Raratonga and Tahiti, for which the New Zealand Government pays an annual subsidy of \$125,000.

RANDOM NOTES

ON PERSONAL CONDUCT AT SEA

ALTHOUGH many lasting friendships, and even marriages, have been entered into by persons meeting for the first time on shipboard, it is well to go slow in making acquaintances at sea. Aboard ship, passengers soon find their level, and if you are guilty of too great haste in establishing a familiar intercourse with the casual stranger, many embarrassing consequences are likely to result from lack of judgment. As an example, unfortunate situations have been known to crop up from permitting one's self to be promiscuously photographed in a group. Of course, on the other hand, it is the part of wisdom not to evince an air of aloofness lest the suspicion arise that you are not altogether right yourself—perhaps even an absconder.

Friendship between men on board is an easy matter with those of congenial tastes, but friendship between the sexes is fraught with greater difficulties, as may be readily imagined. Yet Love is not a stranger among shipmates. This has been recognized in the power given the captain of a ship to perform marriages, so a romance may bud, flower and come to fruition on that little sailing city plying between distant ports. And at least one case of divorce has come to my notice on shipboard. It was in 1916. An English doctor of Seattle, theatrically inclined, became enamored with an Australian lady passenger of similar tastes, with the result that the doctor secured a divorce and later married the Australian.

Do not delay too long your sea ventures. Innumerable times have I heard this plaint: "I have put this trip off too long. I could have taken it twenty years ago. I am too old now to get the full measure of enjoyment." Those making the remark sadly realize the approach of old age and the diminution of the

capacity for pleasure. Beyond a certain age the mind is not likely to be receptive and open to the full value of new impressions. Therefore, my advice is to travel as young as you can. In addition, I would say that, speaking from personal experience and observation, nothing so tends to restore the mental and physical being as a sea voyage. I believe it prolongs one's life.

According to my ideas of the beneficial and far-reaching effects of travel, it ought to be compulsory for transportation officers, public officials, college professors, school-teachers and journalists to become acquainted with other lands. Especially teachers and journalists ought to be given every opportunity to visit other places and people, for the minds of the young and public opinion are largely in their keeping, and their contact with humans of all sorts and conditions cannot be too varied. The journalist class, however, has broadened tremendously in this regard during the period of the late war, and I think the influence will be felt in the newspaper world.

Returning to the subject of general conduct at sea, I want to observe that it is always desirable on a long voyage early to organize an amusements and sports committee for deck games, concerts, card parties, masquerade balls, etc. "Killing time" on shipboard is a veritable necessity. If there is no one to point the way of entertainment, it is a good plan to consult the purser or other officers about it. Almost any one of them will be ready with good suggestions. Generally there are concerts and dances held in the first saloon. When there are only a few first-class passengers, the question sometimes arises as to whether it would not be proper and agreeable to invite passengers of the second class to the entertainments. The wishes of the captain are usually consulted and respected in all cases of the kind.

NATIVE PECULIARITIES

The question is often asked why the islanders like to smear themselves with cocoanut oil. Their explanation is, that they

prefer oil to clothes, as there is less danger of catching cold. The oil resists the rain, and when the sun shines again, the oiled body quickly warms. After a long walk the native will have a bath, apply "lomi lomi" (massage), and then rub himself with cocoanut oil. He is quite classic in this course, for the ancient Greeks and Romans followed a similar bodily treatment. Apropos of clothes, it is claimed by many competent to speak with authority that the introduction of clothing among the natives is responsible for the increase of mortality in their midst, particularly for the spread of tuberculosis. This view I myself share.

SEA SCAPES

There is no twilight in the tropics, where day and night are of equal length, but the sunsets are without rival in any part of the world. I have seen a hundred passengers defer going down to dinner that they might remain on deck to witness the splendor of the setting sun. With the background of a deep blue sky, the iridescent rays of departing gold of day transfiguring the masses of idly floating clouds into the most beautiful color symphony imaginable—a riot of hue that would baffle a Turner. The passengers did well to feast their souls in preference to their bodies.

Speaking of the sunsets, reminds me of the marvelous mirage I once saw in the China Sea. It was the finest I ever hope to look at. It gave the impression of being a great harvest field with sheaves of golden grain. It seemed quite near, about three or four miles off, perhaps. It looked like the Promised Land—at least a vision of it.

MEDICAL POINTERS

In the tropics old sailors often provide themselves with a bottle of peroxide against possible scratches or wounds. Others swear by iodine. Many sailors prefer an application of Stockholm tar to a wound.

My advice to those who are poor sailors is to take a dose

of Cascara Sagrada the night before going to sea, and eat only a light breakfast. If seasick, *try* to keep something on your stomach. I know it is difficult, but will-power does help a lot. People have as many remedies for seasickness as for colds; but I have found a light lager beer (the brand that made Prohibitionists jealous) and biscuits, will effect cures more often than other remedies. But determination and a strong will go a long way in the battle with ailments at sea.

BEVERAGES

Morning and afternoon tea enters largely into the life of passengers. In this respect, conditions at sea to-day show much improvement over those of thirty-five or forty years ago. In those "good old days" tea must have been made in a cauldron, and kept in stock until it was all drunk. Now, however, the passenger may have an individual pot of fresh tea equal to that served in the best hotels ashore. Besides "Chiny tea," the passengers are served with beef tea, which, among those indisposed, has a permanent popularity.

WHEN ENTERING A PORT

I cannot impress too strongly upon passengers entering a strange port the importance of presenting themselves promptly on deck for inspection by quarantine doctors. No one is permitted to leave the ship, neither can she come alongside the wharf in many ports, until the government doctor has given a certificate that the passengers are in good health.

ON COMMUNICATION

The rapid development in recent times of quick communication between the islands will at an early date draw them closer together. The practicability of aeroplanes has been demonstrated, and an article necessary for their maintenance—castor oil—is easily produced in the islands. It is the best of all lubricants, as it prevents the grinding and wearing of the

delicate parts. The best oil is extracted from the red bean variety.

Then, we know how convenient is wireless to-day; even before the Great European War, wireless stations had been erected in the Hawaiian Islands, Yap (in the Carolines), Nauru, Ocean Island, Pago Pago, Tahiti, New Guinea and New Zealand, which were able to communicate with America and Australia. An extended list of stations will be found under the caption of "Wireless."

PACIFIC ISLAND HOMES

When the attractions of the Pacific become better known, and better communication established, many dwellers of the colder countries may be induced to settle in them. Here nature has supplied ample food for those of simple tastes, and for a change there is shellfish and other fish in abundance. The islands are a Paradise for a rest to those who have led a strenuous career.

For settlers of small capital and big families, they possess inducements in the way of soil, rainfall and climate; and no necessity to dig one's way out of snow-drifts four or five months of the year, and what Elysian fields are there for literary and artistic people. Stevenson was very happy in his Samoan retreat. There is no question about its having added years to his life. Recently, Beatrice Grimshaw, one of the most capable and delightful writers on Pacific subjects, has settled in New Guinea (Papua). She devoted her time to growing copra, cotton, coffee, bananas, pineapple and other tropical fruits. The work is done by an army of natives who adore her.

ALCOHOL ABOARD

The smoking-room on board ship is the popular rendezvous where liquids are consumed; and, incidentally, our Lady Nicotine is wooed. In the days to come men who indulge in stimulants may feel impelled to go to sea for a picnic; as no local prohibition laws reach more than three miles off the land on

deep sea ships. Nevertheless, the wave of abstinence is observable on board, and, in point of fact there is not one-quarter of the alcohol consumed now that there was twenty years ago. When the late Captain John Gibb was commander of the *Niagara*, strict decorum prevailed on board, and bridge was popular. On one voyage we celebrated the King's coronation; about half a dozen New Zealand Scots paraded the ship's deck and dining saloon, playing the pipes, and the King's health was proposed by the captain and drunk—in iced water!

WHAT IS A BEACHCOMBER?

The term "beachcomber" describes men who drift along the beaches of the islands, picking up a precarious existence. It is said that the term was first applied to the old miners who combed the sands of the beach on the west coast of New Zealand for gold.

Never give a passenger or officer a letter to post going ashore, or it will meet the same fate as the letter your wife gave you to post—be forgotten.

DISTANCES TO AND FROM

<i>Route</i>	<i>Miles</i>	<i>Route</i>	<i>Miles</i>
Sydney/San Francisco	7,329	Wellington/Raratonga	1,800
		Raratonga/Papeete	630
		Papeete/San Francisco	3,660
Sydney/Vancouver	7,546	Sydney/Auckland	1,281
		Auckland/Suva	1,140
		Suva/Honolulu	2,780
		Honolulu/Vancouver	2,345
Wellington/Vancouver (Direct)	6,476		
Wellington/San Francisco (Direct)	5,920		
Auckland/Raratonga	1,638		
Sydney/London, via Panama Canal	12,597	Sydney/Panama	7,809
		Length of Canal	50
		Panama/London	4,738
Sydney/San Francisco	6,735	Sydney/Pago Pago	2,379
		Pago Pago/Honolulu	2,265
Sydney/Wellington	1,239	Honolulu/San Francisco	2,091

<i>Route</i>	<i>Miles</i>	<i>Route</i>	<i>Miles</i>
Sydney/London, via Wellington, Cape Horn, Rio de Janeiro, Teneriffe and Plymouth	13,440	Sydney/Wellington	1,239
		Wellington/London	12,201
Suva (Fiji)/San Francisco (Direct)	4,757		
Vancouver to San Francisco	959		
Sydney/London, via Suez Canal	12,615		
Yokohama/San Francisco	4,536		
Yokohama/Honolulu	3,394		
Yokohama/Hong Kong	1,788		
Yokohama/Manilla	2,459		
Hong Kong/B. C. via ports...	6,275		
Yokohama/Seattle	4,301		
Shanghai/Moji/Kobe	5,676		
Yokohama/San Francisco.			

60 geographical miles are equal to $69\frac{1}{2}$ English miles.

HOW FAR YOU CAN SEE

A man six feet high at sea-level, can see only two and a half miles to the horizon. You can see as many miles as the square root of the height of your eye in feet. Thus, if your eye is twenty-five feet above the ocean, your horizon is five miles away, and you have to be one hundred feet above the sea to get the horizon ten miles off.

REMINDERS

A bulkhead is a partition.

A fathom is six feet.

A cable's length is seven hundred and twenty feet.

Days are equal all over the world on September 21st and March 21st.

BLACKBIRDING

UNTIL a few years ago, labor schooners, controlled by skippers known as "blackbirders" ostensibly contracted for, but really kidnapped, native labor from Pacific Islands for the mines of Bolivia and Peru, the sugar fields of Australia and the plantations on distant islands of the Pacific where there was a shortage of native labor.

In the sugar plantations of Queensland the minimum rate of pay was fixed at \$30 per annum and found. The term of agreement was for three years, and at the end of the term those preferring to remain had generally made \$150 per year. An Act was passed in about 1901 prohibiting further importation of island labor into that State, and provision was made for the deportation of all Kanakas to their homes at the expiration of all existing contracts.

These agreements generally stipulated that the natives, at the expiration of their contract, were to be returned to their own particular island. In most cases, however, but little attention was paid to this clause of the agreement. Even when returned to their group, it was most essential that they should be landed at their own particular village. Otherwise, in case they were disembarked at another port, they were more than likely to be killed and eaten.

The system became so abused that much misery was inflicted upon the poor islanders, not unlike that visited upon African negroes when they were imported to America in the eighteenth century.

The condition of affairs, however, became so notorious that drastic steps were taken by the Queensland Government to regulate the traffic, with a result that no more colored labor was permitted, and at the expiration of the different con-

tracts the native laborers were returned to their respective islands by the Government.

Subsequent to 1905, when island labor became scarce and dear, planters in the mid-Pacific, especially the Germans in Samoa, employed Chinese to work on the plantations. When their contracts expired, considerable neglect was displayed in returning them to their proper districts in China and if these Chinese happened to be landed in a strange district, scenes of bloodshed and murder were the result.

In bygone days, for the gift of a gun, a chief would let one take as many of his natives as he could catch. A black-bird schooner generally carried from forty to sixty islanders in the hold. My informant, who was one of the charterers of the *Floradora*, had a contract to supply one thousand natives to certain phosphate islands in the Pacific, for which he received \$60 per head, and completed it in six months. They secured these natives from the Marshall, Gilbert, Malati, Flat Rock and Caroline Islands.

Experience has proven that Chinese labor is more satisfactory than that of islanders. The Chinese will pull together as they all have the one idea. When labor is recruited from the various islands, certain race prejudices, envy, jealousy, etc., predominate, and there is always trouble brewing. Nor is the work as satisfactory as that from the Chinese. I should think for many years to come plenty of Chinese contract labor will be obtainable for plantation work in the islands.

Although a law was passed in Australia to control the hiring of island labor, little regard was paid to it for some years later, and it was called recruiting, as it sounded more respectable. For some time the natives did not receive the wages promised them, and even when they did, they soon frittered the money away, buying beads, trinkets and colored cloths for their relatives. Many skippers who made large profits blackbirding, wasted their money in riotous living, gambling, drinking, etc. As there was no lack of facilities to indulge in these vices, the almond-eyed Chinaman, with his

gambling joint, could be found at many points in the Pacific.

Conflicting opinions exist with regard to the results derivable from the islanders' time spent on Queensland sugar plantations. Some authorities claim it brutalizes the natives, while others contend it elevates them and they acquire the white men's ethics.

As an example, I may state that one native having murdered seven of another tribe in the New Hebrides, was in turn killed by seven islanders, all firing a shot at him. When asked by white men why they did not eat him, they said they had learned the white man's ways, and were done with the filthy habit of cannibalism. All they wanted was to punish him for his misdeeds.

Recruiting for black labor commences in May and continues until December. A peculiar prejudice exists among the natives against recruiting for work on their own island. Planters claim that it is much better to allow females to accompany their husbands and work for wages than to leave them behind. Although strongly objected to by missionaries, many of the natives insist on having several wives.

In the early days various devices were resorted to in order to abduct native laborers. One skipper told me he induced 25 native boys to go into the hold of his ship to adjust a water tank, and while they were engaged in this task he fastened down the hatches and carried them away. Another time a chief offered to get him 25 boys if he would take him, his wife and daughter to San Francisco and back. The skipper consented and the chief supplied the boys—after which he and his family were taken to Noumea, where they spent two weeks, returning quite satisfied that they had visited San Francisco.

I know of a case where a white man married a native woman, and afterwards recruited his own father-in-law and mother-in-law for labor on his plantation, but consideration was shown the mother-in-law—she was not sent into the fields, but kept in the house as a domestic.



BROKEN HILL SILVER MINES, NEW SOUTH WALES, AUSTRALIA

Reports of the cruelties practised by kidnappers in the sixties reached England, with the result that H. M. S. *Rosario*, Captain George Palmer, was despatched to the South Seas to investigate.

He states: "Various tactics were resorted to in order to abduct natives, and if they attempted to escape by swimming, no means were considered too cruel to recapture them. He describes one case of a native being hauled back with a boat hook piercing his cheek. Scarcely any law was recognized. Unscrupulous planters connived with labor agents and schooner captains to obtain labor at any cost."

After arrests various devices were employed to delay trials and defeat convictions. Influential people were interested in sugar growing and labor was indispensable for the cane fields.

Captain Palmer describes one instance to illustrate the many obstacles placed in his way in obtaining convictions against kidnappers, and the resourcefulness of Sydney barristers on their behalf, in 1869.

The schooner *Daphne* arrived in Fiji carrying double her legal capacity of islanders from the New Hebrides. He seized the *Daphne* in Fiji, put a prize crew aboard her and sent her to Sydney. In due course, the master and supercargo were brought up for trial.

He describes the captain of the *Daphne* as a man with long, white hair and spectacles, more like a missionary than master of a slave schooner. He further states: "Mr. R. Windeyer was assigned for the prosecution and Mr. W. B. Dalley for the prisoner's defence." He says:

"I saw Mr. Windeyer, Crown Solicitor, just five minutes before entering the court, and he, although only engaged the night before, entered heart and soul into the case. Mr. Dalley was a dapper little barrister, with a well-cut coat, lavender kid gloves and a cane. As a mass of evidence had been manufactured against me, Mr. Dalley had it all his own way and adroitly showed how the natives clung to the *Daphne*,

and made me appear as the kidnapper, instead of the master of the *Daphne*, with the result that the case was dismissed."

The Mr. Dalley referred to later achieved fame by raising a contingent of Australian soldiers and despatching them to Egypt in 1885 to assist the Empire in subduing an uprising in the Soudan. He was subsequently honored with the title of Privy Councillor.

ISLAND RACES

MUCH interest is displayed at times by travelers as to the different races that people the islands of the Pacific. Considerable uncertainty exists as to the classification of the different island races. From careful inquiries made, I classify them as follows: Papuans, Melanesians and Polynesians.

Papuans are very dark, with curly black hair, and this term can be applied to the inhabitants of New Guinea and its immediate vicinity.

Melanesians are claimed by some to be a branch of the Papuan family, and embrace the New Hebrides, Solomon Islands, Bismarck Archipelago and the Fijian group, and islands in their vicinity.

Polynesians are known by their straight hair, brown skin, and more regular features, characteristics applying also to the natives of Samoa, Raratonga, Hawaii and New Zealand. The natives of these islands speak the same language, but in different dialects.

Besides these, there are the inhabitants of the so-called Line Islands, being the Carolines, the Marshall, Gilbert and Ellice Groups, who are considered by ethnologists to be Polynesians with a strong mixture of Malay blood in them.

SMUGGLING

THERE is really not much smuggling by tourists, but drastic laws are necessary to curb professional smugglers.

Nearing the end of an ocean voyage, the great source of concern among the ladies is how one is "to get through the customs." Of course, ladies *never smuggle!* At times they are impatient. I heard an English lady abuse the late Ned Trickett, a customs inspector of Sydney, for refusing entry of a bird of paradise. The importation of these birds is prohibited in America, as well as Australia, as they are a product of New Guinea, and have been almost exterminated.

A customs officer must be a diplomatist, to please everybody. Passengers often think that a customs officer is a law unto himself, and responsible for all the inconveniences to which they are subjected. They forget that it is the Congress or Parliament that makes the laws. Some governments might consider the wisdom of paying customs officers a proper wage.

I never had a serious dispute with a custom house officer, and I have passed through ports in many countries. I have, however, seen excited customs officials in Europe speaking in strange languages, so their excitement did not worry me. Once I was detained on the wharf of Naples for having twenty-five cigarettes that I had bought in Egypt. I had to sign several papers and pay a duty on the cigarettes. But I had the joy of seeing one of our passengers getting his six-weeks' laundry scattered over the wharf. He was the most hated passenger on board, and thought he could bounce the Italian customs officer. Moral: Take your medicine from

the custom house gracefully, and you will receive consideration from ninety-five per cent. of the inspectors.

I witnessed an amusing attempt at smuggling made by an engineer trading between Japan and San Francisco. He had bought an embroidered silk kimono in Yokohama. On arrival in San Francisco he put it on, inside his overcoat. A customs officer and some of the crew were on deck, and as he walked down the gangway they began laughing. He asked what amused them, and looking down he found the kimono had got loose and was hanging below his coat-tails.

Smuggling is a fine art, not only in the Pacific ports but in every part of the globe, although it is hard to excel in cunning. There have been many tricks of smuggling related to me by persons whose identity I cannot disclose. Sufficient to know that the cases set down here are true.

The extent of the ramifications of the smuggler on the Pacific would stagger the average person if given in full. Perhaps the neatest "camouflage" smuggling that has come to my notice is that of the gang who waxed rich by landing opium hidden in bales of alfalfa. A steamer running out of San Francisco carried live sheep, in the old days, to supply meat for the trip. Several bales of hay were shipped also, as food for the animals. The smugglers shipped their opium in these bales. Whatever alfalfa (lucerne) was left over on the ship's arrival at its destination, was put ashore and sold. The confederate aboard saw to it that the bale with opium in it was the surplus each voyage. The accomplices ashore did the rest.

Opium, concealed in barrels of salt salmon, was a popular channel for the passage of the drug until customs officials became increasingly curious as to the full contents of these barrels.

Rivaling in its duplicity anything of which I have ever heard was the scheme of San Francisco opium dealers. These despicable creatures were wont to sell opium to sailor victims on ships bound for Honolulu.

Then, by the same boat, they would send information to

the customs officials at the port of call, informing them that opium was being carried by such and such a member of the crew. Arrest and conviction followed, the informant securing by law half the value of the opium when sold as his reward for supplying information.

Prior to the prohibition of opium from entering a certain port in the North Pacific, the king, whose treasury was low, decided to allot the right of its exclusive sale to the highest bidder, since competition was becoming so great. A Chinese syndicate's bid of \$71,000 was accepted and the cash paid, the representatives being told by the ruling potentate to return the next day to get the necessary papers. Sad to relate, the next day the ruler denied ever having received the money.

STEWARDS

AS stewards enter very largely into one's life at sea, I will refer to them here. They contribute very materially to one's comfort, and in more than forty years of ocean travel I can pay an unstinted tribute to their honesty. I have never locked a stateroom, a trunk or a port-manteau on any ship. As compared with men filling similar positions on shore, I have found them more obliging, always on the alert and keen to anticipate one's wants. Of course, there is sometimes "a fly in the ointment," as when a steward gets a "swelled head" and feels above his position. This, however, is rare. I do not deny that pilfering occurs on board ship, but it is unfair to always blame the stewards. On one of my voyages, between San Francisco and Honolulu, a kodak was stolen out of the saloon, and when the captain was informed of it he suggested the loser should warn the customs inspector at Honolulu to be on the lookout for a kodak. The result was that it was discovered in a first-class passenger's trunk.

Stewards are generally a happy lot and loyal to each other. Often the musical ones among them will form a string band, and this contributes considerably to the pleasure of the voyage. Unlike the stewards ashore, they are not eternally looking for "backsheesh," but are content with a tip at the end of the journey. However, they would doubtless survive the shock if they received one before.

This conceded, however, I must say that it seems to me there is many a good city alderman or ticket scalper lost in the "glory hole" (the steward's sleeping apartment), for they are up to all dodges to turn an honest penny.

The responsibility of a chief steward on a big passenger

steamer must be very great, for he is really the manager of a huge floating hotel, with the difference that the manager of a hotel can go to the markets every morning for provisions, while the former, on long voyages, only touches port occasionally where he can obtain supplies. He must, therefore, lay in his stock before sailing, and this exacts a great deal of judgment.

Stewards are very migratory and turn up in the most unexpected places. Once, in crossing the Atlantic on the *Celtic*, the bathroom attendant called me by name and asked whether I would have my water cold or tepid. He had been my steward on the *Rotamahana* (New Zealand), the first steel ship ever built for ocean travel and on which I had sailed many years before.

On another trip, crossing the Atlantic on the *Majestic*, I ordered a glass of lemonade, and the steward asked, "Will you have it iced, Mr. C.?" It turned out he had been my steward on the New Zealand coast, and he (Hall) later turned up on the *Loongania*, in the Tasmanian trade.

As regards the stewardesses, it need only be said that the majority of lady passengers fully realize the value of their services on a long voyage. Some travelers, however, imagine that the stewardess is their personal nurse, and must devote all her time to waiting on them, regardless of others.

Looking back over the years, in cases of epidemics, illness and shipwrecks, you will find them praised for deeds of devotion and heroism in caring for lady passengers. For instance, as in the case of the *Wimmera*, which was destroyed by a mine off the New Zealand coast on June 26, 1918, the three stewardesses might have saved themselves. They delayed until too late, assisting women and children, and finally went down with the ill-fated ship.

SWEEPS AT SEA

SWEEPS are as popular at sea as horse-racing in Australia. Different methods are followed in managing a Calcutta sweep. Supposing a ship's run for twenty-four hours is to be in the region of three hundred and fifty miles, sixty passengers may decide to take a chance at 2/6 each (60 cents). The pool amounts to £7-10-0 (\$37). There are three prizes. An auctioneer is appointed, who sells each ticket separately; one number may realize \$5 or \$50. One-half of this amount is returned to the party who drew the ticket and the other half goes into the pool. By the time all the numbers are sold, there may be over \$1,000 in the pool, after half the proceeds of bidding have been returned to ticket holders. Fifty per cent goes to the one holding the number giving the exact run, twenty-five per cent to the holder of the ticket which is 15 above the winning number, and twenty-five per cent to the holder of the ticket 15 under the winning number. For example, if the run is three hundred and fifty miles, the holder of that ticket would secure fifty per cent of the money in the pool, and the holders of tickets 335 and 365 would secure twenty-five per cent each. Sometimes high field and low field are sold. If not, the holder of the lowest number wins low field, and the holder of high number takes high field.

High field in this case would be created by the steamer making a run above 365 knots, and low field would carry any number below 335. These results are brought about by unexpected developments. While the captain may think the run for twenty-four hours will be 350 under normal conditions, the engineer's gang may strike a supply of extra good coal in the bunkers and the current and a fair wind may be

with the ship, in which case, the vessel may steam 366 or more miles. If this occurred, 365 would win the first prize and high field as well. On the other hand, the engine may break down or strike bad coal, adverse currents and headwinds, and make only 334 miles. In this case the holder of 335 wins the first prize and low field.

Sometimes in conducting a Calcutta sweep as above, thirty numbers and thirty blanks are put in a hat and the sixty names of the sweep subscribers are put in another hat. This is a matter of arrangement. As numbers or blanks are drawn out of one hat, the names of subscribers are drawn out of the other, and the results are entered on a list of names held by the secretary.

On the *Makura*, July, 1916, Mr. Ryan, of Auckland, was appointed auctioneer, and the bidding began. Take No. 350: It may be bid up to \$25. One-half goes into the pool and one-half is returned to whoever drew No. 350. He is therefore \$12.50 ahead, less 60 cents that he paid for his ticket. Different crowds may vary methods to suit conditions. On this occasion the name given as the holder of the winning number was Molly McGuire, the belle of the Follies, a vaudeville company under Hugh McIntosh's management. It appears Molly did not get the prize, however, the winning number having been bought by a syndicate who used Molly's name as a mascot.

Decimal sweeps are got up daily on some ships. Ten numbers fill a sweep, as only figures from 1 to 10 are used. The first sweep I ever won was guessing the minute the pilot would come on board, on entering Sydney Heads on the old *Zealandia* (Captain Chevelier). It is customary to deduct five or ten per cent from the sweep for the benefit of wives and children of deceased sailors.

A unique sweep is got up among passengers on ships returning to Europe from Sierra Leone, "the white man's grave," on the coast of Africa. Many invalids go on board. When passengers see that a death is imminent, they get up a

sweep on the hour when the body will be passed over the ship's side into the sea.

In connection with a Calcutta sweep on the *Zealandia*, about 1913, I recall an incident in which the prestige of an Australian explorer, Percy Hunter, was threatened with opposition by the Church. Percy acted as auctioneer on the voyage. Mounted on a table in the smoking-room, he called for bids in the sweep. Suddenly he got a rude shock—and it takes a hurricane to shock Percy—when out of a corner emerged the Rev. Mr. ———, of Melbourne, and began a violent protest against turning the smoking-room into a “gambling resort.” Percy was flabbergasted. The situation was saved by Mr. E. Tinson, a dynamite man, who turned upon the reverend gentleman and chided him for interfering. The reverend gentleman withdrew, and the bidding went on with renewed vigor, Sam Langford and Major Gardner Johnson preserving peace.

When crossing the equator on this voyage, King Neptune emerged from the sea and held a most impressive court. We had quite a number of husky athletes on board, among whom were Beales Wright and McLaughlin, the famous tennis players. Those who were crossing the equator for the first time were compelled to undergo the shaving process, also get a ducking in the bath fixed up on deck. Mr. Wright was appointed policeman and his duties consisted in hauling the victims up for sentence. Before the ceremonies were completed, Mr. Wright was grabbed and given a severe ducking. Even at this time (1913) to those who think we are outside the pale of modern conditions on the equator I might say that in consequence of Mr. Wright's tennis racquets getting damaged by some heavy seas that swept on board, he was enabled to order fresh racquets from America by sending a wireless to Fiji, and they cabled from thence to the States, and ordered a new set.

Originality in sweeps is always welcome. A unique sweep was once arranged, on a Pacific voyage, by the late Mr.

William Stitt, who represented the Canadian Pacific Railway in Australia. A number of young people of the romantic age, of both sexes, were on board. The names of thirty young men, with a number on each, were placed in a hat and shaken up. Then the ladies bid for the young men, the limit being "ten bob" (\$2.50). When the auctioneer "knocked down" a young man, the purchaser became his owner for the rest of the day. The young man was placed in the lady's keeping, to do whatever she willed. She might have required him to leap overboard had she desired. Many amusing stunts were performed by the men at the behest of their "owners." One victim was conducted to the barber's shop, where his mustache was dyed, his hair curled, and his cheeks painted.

No one enjoyed that sweep more than William Stitt. He was a connecting link between Australia and Canada, and was immensely popular in both countries. Once he compiled a private cable code between himself and Colonel George H. Ham, another Canadian Pacific Railway representative in Montreal. Selecting an Australian parrot that possessed a wide knowledge of the English language, he tied a ticket to the bird and addressed it to Colonel Ham, of Winnipeg. No shipper's note was sent, but when Colonel Ham heard the parrot talk he knew who had sent it.

DECK SPORTS

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Courtesy Popular Science

SHUFFLE BOARD PLAYED — PILLOW FIGHT — POTATO RACE

DECK SPORTS

Photos Copyrighted by Brown & Dawson



Courtesy Popular Science

BOTTLE RACE



Courtesy Popular Science

TEST OF STRENGTH

THE DAWSON ICE POOL

AN ice pool, common in Dawson City, in the Yukon, Canadian Territory, is more exciting than any Calcutta sweep I ever saw. It is associated with the breaking up of the ice in spring on the Yukon River. The method is something like this:

The dial of a clock is drawn on a large cardboard. Sixty subscribers are necessary, each of whom selects the minute available on the clock's face. If the ice makes the break at the 59th minute the holder of that number takes the prize. The prizes assume many forms. Sometimes it is a cash pool, at one dollar a ticket, and the whole pool goes to the winner. Another method is to get up a pool and give a cushion, vase or watch, the owner donating the article and taking all the cash collected. At times a pool comes in handy for a jeweler to get rid of an article he has had in stock for some time. In 1916, Chief Isaacs, of the Moosehide Indians, won a cut glass vase worth ninety dollars, which now adorns his wigwam.

For days in advance, the entire population is at high tension awaiting the break. In 1915 and 1916 the ice broke on May 3d. A flag-pole is erected on the ice in the middle of the river, to which is attached a steel wire. When the ice breaks and is moved one hundred feet, the wire tightens and starts an electric gong, which is connected at some central point in Dawson City, and rings a bell. Immediately the bell strikes, the winner of the pool is determined. The ice may break slightly and move slowly ten or twenty feet and be blocked by a jam; the flag is left where it stops until another move takes place and carries it one hundred feet. You can imagine the strain on those two thousand adventurous mining spirits during this event.

OCEAN CURRENTS

OCEAN currents are dangerous and unreliable, and should be carefully studied by bidders of numbers in Calcutta sweeps. They often upset all systems and syndicates. I will try to explain their influence.

A captain may set his course at noon to obtain a given point on the following day, but when he has taken his observations he finds the vessel has been set, or run perhaps thirty or forty miles an an angle, setting the vessel back considerably from the course he wished to make. It will, therefore, be seen how easily bidders may be fooled on the vessel's run. I have seen ship's officers mistaken on the run and lose their money.

On a voyage to Tahiti from Honolulu in 1875, H. M. S. *Challenger*, in latitude 7° north, encountered a current running eastward at the rate of fifty miles a day. On the Australian coast the current invariably sets southward at the rate of from two to four miles an hour, and it has been known to curve abreast to Port Stephens, and running with great velocity to east and northeast, attaining a strength of one hundred miles in twenty-four hours. Eastward of Lord Howe Island it quickly loses its strength. The course of the famous Japanese Current is claimed to have been altered by volcanic upheavals at the bottom of the sea.



SYDNEY HARBOR, AUSTRALIA, WITH BOTANICAL GARDENS IN THE FOREGROUND.



AUSTRALIAN BEAR



TURTLE RACE, NEAR ROCKHAMPTON, AUSTRALIA

AREAS OF COUNTRIES ON THE
PACIFIC

	<i>Sq. Miles</i>
AUSTRALIA	2,974,581
ALASKA	577,390
BRITISH NEW GUINEA	90,540
CHINA	1,532,420
(Including Dependencies)	3,913,560
CHILE	292,581
CANADA	3,603,910
DUTCH NEW GUINEA	151,787
ECUADOR	116,000
GERMAN NEW GUINEA	70,000
JAPAN (Including Korea and Depend- encies)	260,738
MEXICO	767,000
NEW ZEALAND	103,581
PARAGUAY	65,000
PERU	727,461
UNITED STATES	2,973,890
VENEZUELA	398,594

STRANGE BURIALS

RETURNING from my trip to Alaska in August, 1916, I saw on the shores of Bella Bella, between Prince Charlotte and Milbank Sounds, little tombstones in Indian burial grounds. Inside these grounds were small wooden cottages. These consisted of one room furnished with the effects taken from the room wherein the Indian had passed away.

While the burial customs of the Siwash Indians of British Columbia may impress a traveler, the rites of the Parsees in Bombay are most extraordinary. These people worship the sun, and at one time they buried their dead in the tops of the trees, where the bodies were devoured by vultures. At present their burials take place at the top of the Tower of Silence situated on Malaban Hill, six miles outside the city. Even yet roosting among the branches of the trees are to be seen hundreds of vultures, awaiting the deposit of the corpse and the departure of the mourners, when they swoop down upon their prey. The Parsees' custom appears strange when we know that they are among the brainiest people on earth and own nearly half Bombay.

The burial system of the Siwash Indian and the Parsee are carried out in accordance with religious rites, while the New Orleans, Louisiana, practice is compulsory, made necessary by commercial exigency.

In a recent visit to New Orleans I learned that all the burials for the past two hundred years had been made in vaults above ground. This condition is rendered necessary owing to the Mississippi River being higher than the city, which is protected by high dykes.

Evidence of the practicability of cremation was forcibly

impressed upon me in the American section of a city in the Far East. A friend was taking me for a ride. In passing an undertaker's parlor he recognized a lady friend emerging, carrying a small box. He stopped the car and asked her to have a ride, as he was driving in her direction. She declined, but asked him to take the box and leave it at her house, whereupon she deposited the box in the rear seat beside me. As we were starting, she asked him to wait until she went to the butcher's shop, where she obtained a couple of pounds of chops; these she placed in the same seat.

We started, and my friend explained that the box contained the cremated remains of Mrs. ———'s husband. He drove through the parks, dilating upon their beauties, but I could not get out of my head the strange position I occupied, having on the seat with me a dead husband's ashes and a couple of pounds of chops.

A new crematorium had just been completed and my host suggested stopping to show me the latest styles in burials. On entering, the janitor took us to the door of a furnace, opened it, and touched a spring. Out rolled a long box. He proceeded to explain the working of the sarcophagus, into which bodies were placed for cremation, impressing upon us that it was the latest patent, worked on roller bearings operated by electricity. He then conducted us to an outside room equipped with shelves, on which were arranged various styles of urns for holding the ashes. These were of copper, brass, nickel or silver, at prices according to size and material. Urns or vases suitable for holding the ashes of a married couple ranged from twenty-five to thirty dollars, while a larger one, for holding the ashes of a family of six, would cost fifty dollars. I had visited Japan, and obtained some knowledge of the lasting properties and artistic character of Damascene and Cloisonné ware, and gave him the addresses of manufacturers from whom he promised to secure a supply of urns.

Burials at sea take place at night, and differ so much that it is difficult to describe all. On large ships they evoke but

little attention. In some cases where deceased is accompanied by relatives, the body is taken home. Generally, however, a body is wrapped in canvas, covered with a flag, and consigned to the mighty deep. Possibly, dancing on deck may be proceeding. The music ceases, however, and a certain solemnity prevails.

Maoris cannot understand the white man's burial customs. When the volcano of Tarawera overflowed in 1886, a number of natives were buried under the lava. Later on the Government exhumed the bodies and re-interred them in a cemetery—quite an unnecessary step in the estimation of the Maoris.

Like aborigines of some other countries, Maoris bury in the same grave the effects of a deceased member. On one occasion near Auckland, a frugal Maori had a presentiment of death and drew a check for his savings—one thousand dollars—which one of the tribe cashed on the understanding that he would bury the cash with the deceased. The bank manager had taken the numbers of the notes, and some months later discovered them in circulation. He sent for payee and demanded an explanation, but was informed by the rogue that he had buried his own check for the amount to balance the matter.

CRUISE OF THE *SHENANDOAH* — REBEL PRIVATEER

AS the cruise of the Confederate man-of-war *Shenandoah* was the most exciting of any on the Pacific, a reference to her career may not be out of place here. She was built in Glasgow in 1863 and sold to Richard Wright, a shipowner of Liverpool, England, who valued her at \$225,000.

On October 8, 1864, she cleared as the *Sea King* (Captain Corbett) from Liverpool, coal-laden for Bombay. According to the evidence of Mr. Gratten, British Consul at Teneriffe, after leaving England, she proceeded to a point near the island of Madeira, to meet the British bark *Laurel*, also a Glasgow built boat, manned by British subjects. Here she coaled and proceeded to the Funchai Roads, near Porto Sancto, at which point arms and munitions of war were transferred, and the men provided with revolvers and cutlasses.

Mr. Dudley was the American consul at Liverpool, and in his evidence states the following: "Captain Semmes, late of the *Alabama*, with his officers and crew, were rescued by the English yacht *Deer Hound* when his ship was sunk by the United States man-of-war *Kearsarge* off the coast of France, on June 19, 1864; he went out in the *Laurel* accompanied by eight Confederate officers and a crew consisting of about one hundred and forty, half British and half Southerners." At this point, Captain Waddell assumed command of the ship, and started for the Pacific upon his errand of preying upon American commerce. Being desirous of obtaining coal supplies and additional men, he put into the Australian port of Melbourne on January 25, 1865. According to International Law, the *Shenandoah* was liable to confiscation; instead of which, however, Captain Waddell, his officers and crew, were

accorded a royal Australian welcome, and honored guests at balls, soirées and picnics. The energetic American consul, William Blanchard, protested to Governor Darling, of the Colony of Victoria, against any assistance being rendered to the ship. In spite of this, she was permitted to take on board provisions and three hundred tons of coal, and obtain recruits.

When the *Shenandoah* arrived in Melbourne, part of her crew were men she had impressed from American ships she had destroyed prior to her arrival. These men deserted, and sought protection from the American consul. The captain was therefore compelled to obtain more men, and succeeded in securing forty-two recruits in Melbourne. From a parliamentary report in the Melbourne *Argus* of February 7, 1865, I note that when the matter was brought up in the Victorian Parliament by Graham Berry, he protested against the assistance being rendered to the *Shenandoah*. He, however, was opposed by other members, including McCulloch, Higginbotham, O'Shaunessy and Lalor.

Possibly Lalor might not be blamed, as he himself had been a rebel and leader of the rioters at the famous Eureka Stockade. On a voyage from England to Australia the *Shenandoah* captured and burned nine American ships. Consul Blanchard pointed out to Governor Darling that the ship had never entered a port of the so-called Confederate States of America, and therefore was not entitled to belligerent rights; he also warned the governor that the United States would claim indemnity for any damages that might thereafter be done by the *Shenandoah* to American shipping.

On February 18, 1865, she left Melbourne and proceeded to sea to continue her piracy on American ships, especially whalers, traveling as far north as the Behring Sea, where, on June 28, 1865, she ran into a fleet of ten American whalers among the icebergs, mostly from New Bedford. She hoisted the Stars and Stripes (United States flag) whereupon one whaler, which had met with an accident, thinking she was a friendly vessel, sent a small boat to the *Shenandoah*, with a

request for a carpenter to be loaned her. The *Shenandoah* then hauled down the American flag, ran up the Confederate ensign in its place, and fired a blank shot into the center of the fleet. Following on this, she proceeded to carry out her mission of destruction in the Polar seas by setting fire to eight of the whale ships, the remaining two being necessary for the prisoners. Hunt, in his account, claims that Captain Waddell obtained from one of the captured ships San Francisco papers of April 15th, containing the news of President Lincoln's assassination, the fall of Richmond and the surrender of Lee on April 14, 1865. Whether he did or not, this was his last act of destruction. During her career, the *Shenandoah* captured thirty-eight of the United States' vessels, of which thirty were whalers.

Upon deciding to discontinue his cruise, Captain Waddell proceeded to England and surrendered to Captain Paynter of the *Donegal*, in November, 1865, when her crew were released, and the *Shenandoah* handed over to the United States consul.

A \$6,250,000 DINNER

Probably one of the most expensive dinners eaten on the shores of the Pacific was that enjoyed by Mr. Gurner, of Melbourne, Crown Solicitor of the Colony of Victoria, Australia, in 1865, who in defiance of the protest of the American consul, William Blanchard, insisted upon eating his dinner before taking steps to prevent the *Shenandoah*—claimed to be a war ship of the Southern Confederacy—proceeding to sea.

In the adjustment of claims of the United States against Great Britain for damages done by rebel cruisers fitted out in Great Britain for the Southern Confederacy, to prey upon American commerce, the amount of damages assessed at the Geneva Conference for the *Shenandoah's* share was \$6,250,000. This sum Mr. Gurner would have saved the British Government if he had postponed his dinner, and restrained the *Shenandoah* from proceeding to sea.

WELCOME TO THE AMERICAN FLEET

THE hospitality accorded the officers and crew of the *Shenandoah* is only on a par with the welcome Australasia extends to visiting men-of-war from all the nations of the earth, whenever they pay a visit to her shores. In support of this statement I will tell of the visit of the American naval fleet of sixteen battleships during their tour of the world in 1908.

When the contemplated voyage of the fleet was announced, the Prime Minister of Australia, Hon. Alfred Deakin, sent a cordial invitation to the President of the United States, the late Theodore Roosevelt, for the fleet to visit Australia. Following the usual custom for diplomatic intercourse, this invitation could not be sent direct from Melbourne to Washington, but was first sent by the Prime Minister to the Governor-General of Australia, Lord Northcote, who forwarded it to London to the Secretary of State for the Colonies, and the latter communicated it to the United States Government. On March 21, 1908, the Secretary of State cabled that the United States Government gladly accepted the invitation and highly appreciated the friendly courtesy of the Commonwealth.

In due time, the sixteen battleships reached Australian waters, after a voyage from the Atlantic through the Straits of Magellan, up the Pacific to San Francisco and Honolulu. The navigation of these vessels during this trip must have indeed been skilful, for the Straits of Magellan are the most dangerous on the globe—so dangerous, in fact, that some years ago a marine insurance company discontinued taking risks on large boats sailing from New Zealand to Europe which traveled by way of the Straits of Magellan.

The ovation which greeted the American fleet upon its

WELCOME OF THE AMERICAN FLEET 315

arrival at Auckland, New Zealand, was unsurpassed in the history of that dominion. Several days were spent in sight-seeing; among other entertainments offered the visitors, special trains took the officers and as many of the men as could be spared to the world-famed hot springs at Rotorua, one hundred and seventy-two miles south of Auckland.

Upon leaving New Zealand, the fleet proceeded to Sydney, where it was received with great hospitality. The governor, Sir Henry Rawson, Sir G. C. Wade, K.C., M.G., the Hon. W. H. Wood, chief secretary, and all other members of the government, together with the people, vied with each other in their efforts to entertain the personnel. Sir Thomas Hughes, Lord Mayor of Sydney at the time, tendered the officers a reception and ball, and endeavored to make their visit pleasant. All kinds of receptions, consisting of banquets, balls and drives were tendered to them. In response to an invitation which Cardinal Moran had cabled to Washington, they attended a banquet given by His Eminence in the Sydney Town Hall.

During their stay in Sydney, Admiral Sperry and the officers gave a reception on the flagship *Connecticut* to as many of the residents as they could accommodate. Both officers and men made a very favorable impression on the Australians, and to some extent Americans and Australians became better acquainted. While more or less joviality prevailed, there were no serious breaches of the law, nor did any serious accidents occur.

Some time after their departure, the London correspondent of the Sydney *Telegraph* wrote: "It is amusing to the Australians in London to notice the jealousy with which Englishmen are watching the very cordial hand-shaking between Americans and Australians."

After their sojourn in Sydney, the fleet proceeded to Melbourne, where a repetition of hospitalities took place. As Melbourne was the seat of the Federal Government, backed by the Ministry of the day, her residents were unremitting in their attention.

The Federal Government voted £30,000 (\$150,000), Melbourne citizens, £2,000 (\$10,000), and Sydney £4,000 (\$20,000) for entertaining the American fleet during its stay in Australia. In addition to this many families offered the hospitality of their homes to the visitors.

During their visits in Sydney, Melbourne and Albany, officers and crew were presented with Australian animals of various kinds until the ships resembled zoological gardens.

After leaving Melbourne, the fleet's next stop was at Albany, Western Australia, where they refilled their bunkers with coal and proceeded to the Orient. The cruise of this American fleet opened the eyes of the American people to the absence of American merchant ships. Accompanying the fleet were thirty-one coal-laden colliers, only one of which floated the Stars and Stripes. They were always behind time and a continual source of anxiety to the commander-in-chief.

The fleet continued through Lombok passage, McCassare Straits, the Celebes Sea, to Zamboanga, P. I., and the Lulu Sea to Manila. The first squadron, consisting of the first and second divisions, proceeded to Yokohama, and the second squadron, consisting of the third and fourth, to Amoy; then both returned to Manila.

On November 1, 1908, the fleet left for Singapore and Colombo, thence through the Suez Canal into the Mediterranean.

MY VOYAGE IN 1918

THE *Niagara* left Sydney on August 24, 1918. At Auckland five days were consumed in discharging and taking on cargoes; this could have been accomplished in three days but for the refusal of wharf laborers to work after 10 p.m. or on Sundays.

At Suva, Fiji, we remained from midnight until 8 A.M. Four of our passengers hired a taxi and when three miles from the ship their gasoline ran out. With but thirty minutes to catch the boat, they made the distance in a burst of speed afoot, barely reaching the wharf in time to get on board ship by climbing a rope ladder up the vessel's side. On a former trip three ladies had a similar experience, barely catching the ship by the last-minute rope ladder route.

At Suva two very interesting passengers, Professor Cary, of Princeton University, and Dr. A. G. Mayor, of Carnegie Institution, Washington, D. C., joined us on the *Niagara*. Professor Cary and Dr. Mayor are men of a wide range of culture. Two of their specialties would entitle them to be called marine farmers and coral cultivators.

These scientists opened our eyes to the strides that American institutions are making in their efforts to discover what can be grown beneath the waters of earth, as well as on the surface of the ground. These men study the habits of fishes, including those of the shell family, sponge growth, corals, and the course and speed of ocean currents, and the temperatures above and below the surface of the ocean.

Two photographs of corals were given me by Dr. Mayor. The smallest specimen shown originally weighed two ounces and was planted by Dr. Mayor in shallow water at Pago Pago, in 1917. When he came to examine it a year later it had in-

creased to seventy ounces in weight. The planting was done by setting the coral on a rock which had been imbedded in concrete. Dr. Mayor gives it as his opinion that as the coral grows older it does not increase in weight in the same ratio.

The investigations of Dr. Mayor and Professor Cary have extended to many islands of the Pacific. Among other facts that they encountered was the one that there were tribes in New Guinea who knew of the pernicious effects of alcohol on the human system. They discovered that these natives when preparing a white man for a feast now "stall feed" him in a bamboo cage with taro for two weeks before the banquet, so as to purge his system of any rum or tobacco flavor. Evidently rum and tobacco give "white meat" a disagreeable taste.

On this trip of the *Niagara* we raised seven hundred pounds, or thirty-five hundred dollars in American money, for the Red Cross and the Mine Sweepers' funds.

This helped the ship's record, for thanks to the energy of her commander, Captain Rolls, the *Niagara* has to its credit the largest amount of subscriptions raised for patriotic funds of any steamer trading in the Pacific during the war.

At Honolulu our ship nearly lost Chief-Steward Read. It came about in this way: He sent a messenger ashore to get a hundred dollars in change. A secret service officer from the bank observed the messenger getting the gold and silver coin. The collector of the port thereupon came aboard and pointed out to Mr. Read that he was liable to both fine and imprisonment for taking coin out of Honolulu. However, the official was sensible enough to understand that it was a matter of ignorance on the part of the steward and let him off with an admonition.

Our arrival in Vancouver was a great relief to Captain Rolls, careful navigator and most obliging officer. The strain had been heavy on him. But, later on, his powers of endurance were put to even a greater test in coping with the emergencies incidental to the epidemic of the "flu" on this long voyage.

PACIFIC TRIPS

TO persons contemplating a trip from America to the Orient, Australia and New Zealand, visiting the islands of the Pacific on the return journey, the choice of several steamship lines is open. The palatial boats of the Canadian Pacific Ocean Service sail regularly from Vancouver, B. C., for Japan, China, and the Philippines. The fare in pre-war times for return trip varied from \$262.50 to \$437.50, according to the equipment of the steamer. The two large express boats have a gross tonnage of 16,850 tons each.

Travelers desirous of proceeding from Yokohama to Shanghai, Hong Kong, Manila and Australia or New Zealand, can do so for a couple of hundred dollars extra, by a Japanese line. The Canadian Pacific at Vancouver will issue a round-trip ticket by their own steamers to Yokohama and Hong Kong, connecting with the Japanese line for Manila and Australia, allowing stop-over there, and returning by Canadian-Australian steamers to Vancouver, via New Zealand, Fiji and Honolulu for about \$500. Or, they will give option to return from Sydney to San Francisco by the Oceanic steamers visiting America, Samoa and Honolulu. Duration of tickets can often be arranged to suit the traveler.

Another port of embarkation for the Orient is Seattle, from which city steamers of another Japanese line, the Nippon Yusen Kiasha, depart.

A very popular line for the Orient is the Toyo Kisen Kiasha, sailing from San Francisco every twenty-one days and visiting various ports in the Orient. These steamers are twin-screw and have a displacement of 12,000 and 13,000 tons. The same facilities for proceeding to Australia and returning

via New Zealand, is obtainable as is described in the preceding paragraph.

Living on board a Japanese steamer is a pleasant change and very interesting, giving one an impression of the higher class of life in the land of the Nippon. No alarm need be felt about the language, as on all steamers and cities bordering the Orient Pacific, there are those who speak English.

One of the oldest steamship lines in the Pacific is the Oceanic, which now follows a route from San Francisco to Honolulu, Pago Pago (American Samoa), and thence to Sydney, returning by the same route. These ships remain a short time at each island port to give passengers an opportunity of seeing the sights. Their stay in Sydney varies according to war, labor, quarantine, or unforeseen circumstances. The net time consumed on the voyage is nineteen days, but the visitor can, however, remain over for the following boats or be transferred to return by some other route. If desirous of seeing some of Australia, he can go by train or boat to Brisbane (150,000 population), 700 miles north, or by train to Melbourne (680,000 population), 600 miles south. From Sydney he can take a train trip and inspect the beautiful scenery of the Blue Mountains, and then go by automobile to the famous Jenolau Caves. No hardships are encountered, as private owners and the government maintain a chain of well equipped hotels along the route. The climate is most delightful, and no inconveniences may be expected from that quarter.

The Union Steamship Company of New Zealand, for many years have maintained a line of steamers running between Sydney, Australia, and Vancouver, B. C., stopping en route at Honolulu, Suva (Fiji), and Auckland, New Zealand—time of journey about twenty-three days; but, as usual, arrangements for breaking the journey and staying over at any point can be made on application.

THE PELEW AND CAROLINE ISLANDS.

(LATE GERMAN POSSESSIONS, NOW OCCUPIED BY JAPAN.)

(Abridged from M. Percy Allen's book on the Pacific)

THE Pelews and the Carolines, lying between the equator and the eleventh north parallel, and stretching across 30 degrees of longitude, consist of a chain of 652 islands, with a population of about 30,000, a combination of the black, brown and yellow races.

These islands were discovered in 1527 by the Portuguese, and in 1686 were annexed by Spain. After the failure of several missionary attempts in the 18th century, Spain took little active interest in the group until August, 1885, when the German flag was hoisted at Yap. The sharp dispute which followed was referred to the Pope as arbitrator, who decided in favor of Spain, but reserved to Germany special trade privileges. A revolt in October, 1910, resulted in the murder of Messrs. Boder (a district magistrate), Hollborn (clerk), Brauckmann (secretary), and Haffner, and several loyal natives. The cause of the massacre is said to have been the system of compulsory labor, which is enforced in most German possessions. One of the natives became insubordinate and was punished, and this so incensed the others that the white men were attacked. A punitive expedition which went from New Britain under the command of the Acting-Governor (Dr. Osswald) exacted terrible vengeance. In 1889, with the Marianne or Ladrone Islands to the north (except Guam, which was ceded by Spain to the United States in 1898), the groups passed from Spanish to German possession, the purchase price paid by Germany being \$4,200,000. In 1914, shortly after the outbreak of the war, a Japanese naval force occupied the islands on behalf of the British Government.

- The chief islands in the Carolines are Yap, Ponape and Kusaie (Strong's Island), all volcanic, well watered, and extremely fertile; and, in the Pelews, Bab-el-Thaob. For administrative purposes there are two divisions—the Eastern Carolines, capital Ponape; and the Western Carolines and the Pelews, capital Yap.

The climate is moist and equable, the extreme range of the thermometer during three days being only 19 degrees, the mean temperature being $80\frac{1}{4}$ degrees. The trade wind blows for the greater part of the year, and there is a good rainfall. In common with most of the islands, the Carolines are occasionally visited by hurricanes. In April, 1905, an exceptionally violent storm swept over Kusaie, Ponape and other islands, wrecking most of the houses and boats and destroying practically all the plantations. Twenty people were killed and more than 300 injured. Again, in April, 1907, great havoc was played by a big storm, much distress being caused.

Of all the islands in the Pacific, excepting only Easter Island, with its colossal images, the Carolines are the most interesting. Mr. Christian, in his book, "The Caroline Islands," describes them as "an enchanted region of archæology." Scattered throughout the group, notably at Ponape and Lele, a little island off Kusaie, are massive ruins—one of a strange water town, an ancient island Venice—whose origin is as mysterious as that of the great stone figures on Easter Island. Hundreds of acres, in some localities, are covered by the remains of walls, canals and earthworks of the most stupendous character, built upon a general plan such as could only have been conceived by men of power and intelligence, acquainted with mechanical appliances for raising enormous weights and transporting huge blocks of stone considerable distances, both by land and water. These works, which strike even civilized men with astonishment, could only have been effected by the labor of thousands of men working in concert and under command, and they prove from their aspect and the evident intention of some of them, that their builders must

have had at the time of their erection some form of settled government and system of religion. By whom and for what purpose they were built are questions to which no answer has yet been given.

Thirty-six minor groups are embraced in the archipelago, the more important of which, taken one by one from west to east, are:—

The Pelew group, lying on the western frontier, contains about 200 islands, Bab-el-Thaob being the largest. The principal products are turtle-shell, copra and bêche-de-mer. The soil is rich and fertile, and water is abundant. Breadfruit, bananas, sugarcane, lemons, oranges, cocoanuts, and other tropical trees and fruits are grown. Cattle, fowls and goats thrive, and fish abound on the coast. In olden times there was great commercial activity in the western Carolines.

The story of the wreck of the "Antelope" at the Pelews in 1783, and of the amiable Prince Lee Boo, who accompanied Captain Wilson to England, is a familiar one. The shipwrecked Englishmen were treated for a period of four months with generous hospitality by the natives, and described them as "delicate in their sentiment, friendly in their disposition; in short, a people that do honor to the human race," but subsequent contact with Europeans has greatly diminished their numbers, without in any way improving their condition, and instead of, as was then estimated, 40,000 or 50,000 gay and industrious islanders, there are now but a few thousand apathetic and discouraged people.

Three hundred miles northeast of the Pelews lies the Yap group, consisting of one main island, with the islands of Yap and Ramung to the north, which are only separated from each other by a narrow channel, easily fordable at low tide, and half a dozen islets. Yap is surrounded by a coral reef, 35 miles long and 5 broad. There are hardly any rivulets on the island, but inland are extensive swamps laid out in plantations of a water taro. The native population numbers about 8,000, in character peaceable and apathetic, but not particu-

larly cordial to strangers. The island is surrounded by a belt of cocoanut palms, about half a mile in thickness, and produces in great abundance sweet potatoes, various kinds of yam, giant taro, mummy apples, pineapples, plantains, sugarcane, breadfruit, and the tropical almond. The principal timber tree is the voi, with a leaf like that of a magnolia, and in the wood resembling mahogany. There are numerous relics of a vanished civilization: embankments and terraces, sites of ancient cultivation, and solid roads, neatly paved with regular stone blocks, ancient stone platforms and graves, and enormous council lodges of quaint design, with high gables and lofty carved pillars. The ruins of ancient stone fish-weirs fill the lagoon between the reef and the shore, making navigation a most difficult matter and calling forth many most unkind remarks from trading skippers. Yap is one of the most beautiful of the Caroline Islands, having magnificent groves of bamboo, croton, cocoanut and areca palms. Huge green and yellow tree-lizards are found in the bush, and the nights are brilliant with fire-flies glittering in and out of the woods like showers of golden sparks. There are few birds, however. Tomil Harbor, on the east coast, is the chief port. The Dutch-German cable touches at Yap, which is accordingly in communication with the outside world. The wireless station established there was destroyed by the Japanese navy in 1914.

The Uluthi or Mackenzie group lies a little to the north-east of Yap, the chief trading-place being Mokomok or Arrowroot Island. The natives have from ancient times been subject to Yap, and annually pay their tribute to the chiefs of that island. They are a peaceful and law-abiding people.

The next islands of importance are Uleai. Raur is the trading depot of this group, which exports great quantities of copra, pearl-shell and bêche-de-mer.

The next group is Ruk, also called Hogolu, comprising about 70 islands of basalt and coral, lying in the middle of a lagoon. There is a large depth of water, and good anchorage for vessels of large draught. There is a large annual export

of copra, pearl-shell, turtle-shell and *bêche-de-mer*. Here, from the grated root of the wild ginger, an orange-colored cosmetic (*taik*) is made in little cones, which are readily exchanged all over the Caroline group. Ruk has a population of about 9,000, composed of two distinct races, the hill tribes being dark in color, and those on the coast a light reddish-brown. The natives of Ruk, some of whom are wild and daring, and of the neighboring group of the Mortlocks, have a curious custom of piercing the lower lobe of the ear, loading it with heavy ornaments, and causing it to expand to an enormous size. The Mortlocks consist of three groups: Lukunor, Sa-toan, and Etal, containing in all 98 islands, with a population of about 2,000.

The next group to the eastward is that of Ponape or Ascension, with the neighboring minor groups of Ant, Pakin, and Ngatik. The area of the island of Ponape is some 340 square miles. It is surrounded by a barrier reef, enclosing a lagoon about a mile and a half in breadth, in which are scattered 33 islets. The population is about 3,000, who are Christianized, though some of them retain many of their old heathen practices. Ponape contains very considerable tracts of comparatively level or sloping lands, irrespective of the low valleys or flats along the seacoast. There are many great streams in all directions, with cascades for the turning of mills, and in the valleys below of sufficient volume for the floatage of rafts and the navigation of large boats. The interior is altogether uninhabited, although covered with the ruins of a former civilization. The island yields in abundance almost every valuable tropical product, but the principal articles of trade are pearl-shell, tortoise-shell, *bêche-de-mer*, copra, vegetable ivory and fungus.

Ngatik or Raven's Island lies 30 miles to the southwest of Ponape. It is populated by the descendants of an American negro castaway, who with his native wife and children, and a few relations from Kiti, landed there about 50 years ago.

Kusaie (Strong's Island), "the garden of Micronesia," is

the headquarters of the American mission in the Western Pacific. Its population, once large, now numbers only a few hundred. The health and vigor of the folk have been sapped by terrible diseases, introduced by the brutal and lawless crews of visiting whalers, whom Dr. Rife, of the local mission, from some heartrending medical experience, "with perfect justice denounced as the vilest miscreants, the enemies of God and man. . . . The harbor of Lele in days past was a great rendezvous for the New Bedford and New England whale-ships. There the famous 'Bully' Hayes,* 'the modern buccaneer,' played fine pranks after losing his vessel on the reefs, half frightening the lives out of the peaceful Kusaians by landing a number of fierce and warlike Ocean and Gilbert Islanders, who brewed large quantities of cocoanut toddy and set the whole place in a ferment with their carousals and mad orgies: Night after night they kept it up, alternately drinking and fighting. Murdered men's bodies were picked up on the beach every morning, and the poor natives of Lele fled in terror of their lives. Hayes at last brought the crazy mutineers back to their senses, and meditated settling on the island, when, greatly to the American missionaries' relief, a barque came in from Honolulu with the intelligence that a British man-o'-war was coming up fast in search of that dreadful sinner and reprobate, the aforesaid Hayes." Besides all the tropical trees of Polynesia and various kinds of palms, Lele is covered with valuable timber trees from the shores to the summits of the mountains. Some of this wood, of a species yet little known to Europeans, is of the best quality for ship-building purposes, being perfectly straight and of the most convenient size, as well as being of great lengths; added to this its durability is remarkable, and it cannot be attacked by the salt-water worm. For these reasons the contractors for the building of a dry-dock and wharves in Shanghai and other ports of China have obtained hence and from the neighboring island of Ponape cargoes of piles which gave satisfaction.

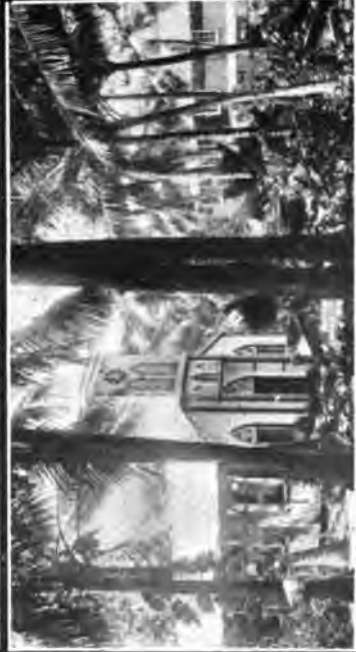
* See A. T. Saunder's account of Hayes, p. 347.



A Half-Caste Family, Marshall Islands
 Sacred Heart Catholic Mission Station
 Juit — Marshall Island



A Village in the Gilbert Islands
 A Street in Rabaul — Capital of German
 New Guinea





MARSHALL ISLAND, HOUSE AHRNO



SCENE IN CAROLINES. MARK FOY, EXPLORER

THE MARSHALL ISLANDS

By THOS. J. McMAHON, F.R.G.S.

THE group consists of a series of islands to the northwest of the Gilberts, in the Central Pacific, midway as it were from Asia, America and Australia, and all to the north of the equator. There is an aggregate area of 150 square miles and a population of about 10,000. The most important islands are Jaluit (the capital), Ahrno, Majuro, and Leigieb. These islands belonged to Germany since 1885, but by the recent decision of the Peace Conference will, it is sure, be administered by Japan with a mandate from the League of Nations.

German ownership was neither progressive nor honorable, and the natives, neglected and oppressed until their numbers are about half of what they were ten years ago. In striking contrast to this cruel policy is the humane treatment of the natives and the startling progress of the islands under the Japanese since their occupation for the Allies in 1914.

Under German rule the group was to the world unimportant, but the methods of the Japanese are so strikingly energetic that without a doubt within ten years the world will see a New Japan in this part of the Central Pacific, these atolls flourishing with many industries, a great influx of Japanese colonists, the natives restored to vigor, and ambition and their numbers increasing. Trade with Japan is in the ascendancy nowadays; four years ago Australian trade held against all comers, even German ownership and privileges, but Japanese traders, aided by subsidies and administrative protection and the sale of attractively displayed wares, by their knowledge of the Marshall language, the class of trade and its

suitability to the native taste, Japan has seized upon the Central Pacific trade possibilities, and from there is spreading or likely to spread throughout the whole of the Pacific.

The Carolines, adjoining, as it were, the Marshalls, and also to be included in the Japanese administration, are already within the circle of Japanese influence, and regular lines of first-class steamers, maintaining direct traffic with Japan, insure a rapidly increasing trade with both groups.

The constant and consistent movements of Japanese naval authorities through the islands, and their personal influence with the natives, are factors in the decided success of this Japanese progress, and incidentally of a Japanese propaganda that would win the islands to a recognition and desire for a continuance of Japanese administration. There is no denying Japanese ability in its endeavors to make an administrative success of her new colonies. All the native kings and queens, the chiefs and the chief women, have been sent to Japan to realize the power and might of the nation; to be entertained and impressed with the grandeur of the Japanese court; to be awed by an especial naval display of the greatest ships of the Japanese navy; to be amazed by the din and life of Japanese workshops, and Japanese industrial activity. Every step of these dusky potentates while visiting Japan was followed up by Japanese moving picture experts. These same pictures are taken round the Marshall lagoons by the Japanese patrol boats, and screened for the benefit of the people who delight in seeing their own chiefs in the midst of the great and crowded scenes of the mighty Japanese nation.

Japanese thoroughness is manifested in many ways in her administration of the Marshalls. According to the terms of occupation, German laws were to be continued until a final decision of the Peace Conference handed the group to the Japanese; but it is evident they have anticipated their claims to future administration by Japanese regulations, customs and tariffs. The German language is practically forbidden, but the Japanese language is compulsory to the natives, and with

all its difficulties, the natives are beginning to use it. German schools have been closed, and a Japanese school opened in Jaluit, in charge of a Japanese schoolmaster and schoolmistress.

Boys and girls have been brought in from nearly every important island of the group, and they are getting a commercial education which by the success that already seems assured is not only proving the soundness of the methods of Japanese teaching, but is disclosing the remarkable intelligence of the native children. The Japanese are not only materialistic, but determined that no influence but Japanese shall exist.

They have no sense of the importance or the need of missionaries. The first act of the Japanese authorities in any territory coming under their control is either to promptly close missions and their schools, or by a suave, polite, safely diplomatic official aggression encompass their dismissal or demission. The natives of the Marshalls are rightly incensed at the closing of the mission and mission schools throughout their islands. They are suffering under a sense of oppression in this matter and the Japanese authorities are feeling the native anger in an open continuance of repugnance to them and their rule. Both the Roman Catholic Sacred Heart (mostly Germans), and the Boston or American missions—also of latter years under Germans in many lagoons—have been made inactive, after many years of excellent work. There is no prospect of the missions being reopened.

Japanese traders are in every island—smart, dapper little men, speaking English and the native tongue fluently, and who have been commercially trained in either England or America; they are eager, enterprising and energetic, and in their spare time schoolmasters. Japanese trading emporiums, as Japanese trading companies, are increasing in the Marshalls, at once giving the denial to the generally accepted ignorant assertion that these islands are commercially unimportant.

There has been a complete domestic, social, and national upheaval for the Marshall Island natives since the latter days

of 1914. The native houses, more particularly the chiefs' bungalows, are ornamented with Japanese maps, almanacs, and books; colored portraits of the Japanese royal family adorn the walls where once the German royal family were revered. The native women do up their hair "à la Japan"; they comb and scent it with Japanese combs and pomades, and their wardrobe is not complete without bright-colored Japanese kimonos and umbrellas. The Marshall Island chief dons Japanese suits (European cut), wears Japanese made boots, carries a Japanese walking stick, and his jewelry is distinctly of Japanese workmanship. Native youths are being trained under Japanese officers to be Japanese cadets, smart little chaps in khaki uniforms and Japanese black caps, while the native girls are fast becoming adepts in all the accomplishments of a Japanese lady.

The Japanese authorities almost to the day they arrived in the Marshalls issued regulations demanding that all waste and hurricane-swept atolls be promptly replanted with the useful cocoanut, for they fully realize the tremendous possibilities of this commercial palm tree.

The natives, affrighted at such a gigantic task, petitioned it was impossible, they had not the labor to carry out the work, but the petition was fruitless. The Japanese are no laggards and are coldly insistent that no people under their care will hinder or hamper official commands, and so their planting is going on apace, and in another ten years the output of copra from the Marshalls will be more than double what it is to-day. Japanese traders are stimulating the natives to more industrial efforts, especially in reviving native string and rope making from the cocoanut fibre, also encouraging them to find the partially lost secrets of Marshall dyes, which are permanent, brilliant, and of many hues. A feature of Japanese thoroughness of action and administration in the Marshalls that will be commended all the world over is, that they insist on building up the health and vigor of the islanders by excellent hospitals and traveling doctors and dentists, and

the results to date are direct evidences of Japanese humane ideals, as well as a rigid line of administration following, as they argue, "on British lines" and which cannot be questioned.

It might truthfully be said the Marshall Islands people are no longer "black barbarians, without hopes or ambitions," but in their civilization, and bending to the strenuous methods of their Japanese guardians, they will undoubtedly become a prosperous Pacific race of pride and importance; their lagoons are no longer empty, but the waterways of a busy commercial activity. Japanese ideals are active in the Marshalls and Japanese activity wastes neither time nor opportunities.

In the terms of agreement by which Japan undertook the occupation of the Marshalls and Carolines, the recruiting of native labor by Britishers was to continue. Recruiters who have gone to the Carolines report, that to all outward appearances the Japanese authorities there, while not showing any open evasion of this part of the agreement, nevertheless have a polite way of hurrying on recruiters, and at the same time preventing the natives—who express all willingness for labor, by the way—being recruited. There is some truth in the story that a year or so ago this infringement of the terms of agreement led to some correspondence between one of the Allies and the Japanese authorities, and the unseen hand which has tightened on the natives' liberties was somewhat relaxed, and one or two recruiting trips were fairly successful. It is to be expected that once Japan has assumed full rights of control, mandate or no mandate, recruiting will be impossible in both the Marshalls and Carolines.

As late as May, 1919, the Marshalls were visited by a severe hurricane, which swept away many of the native plantations. This caused much privation for the natives, and food supplies were promptly forwarded by British Resident Commissioners on Nauru Island, by the Australian steamer "Tambo." Nauru is 300 miles away, and formerly was part (or was included) in the Marshall Islands group while under German rule.

AUSTRALIA

WHEN I decided to compile these incidents I had no intention of dealing at any length with the mainland of America or that of Australia; but while recently traveling in the United States and Canada, numerous inquiries were made of me regarding Australia. This interest was occasioned by the flattering reports published in the newspapers of those countries regarding the heroism and the sacrifices of the Australian soldiers in the great war. Prior to the war; a vague impression prevailed that Australia produced only sheep and rabbits.

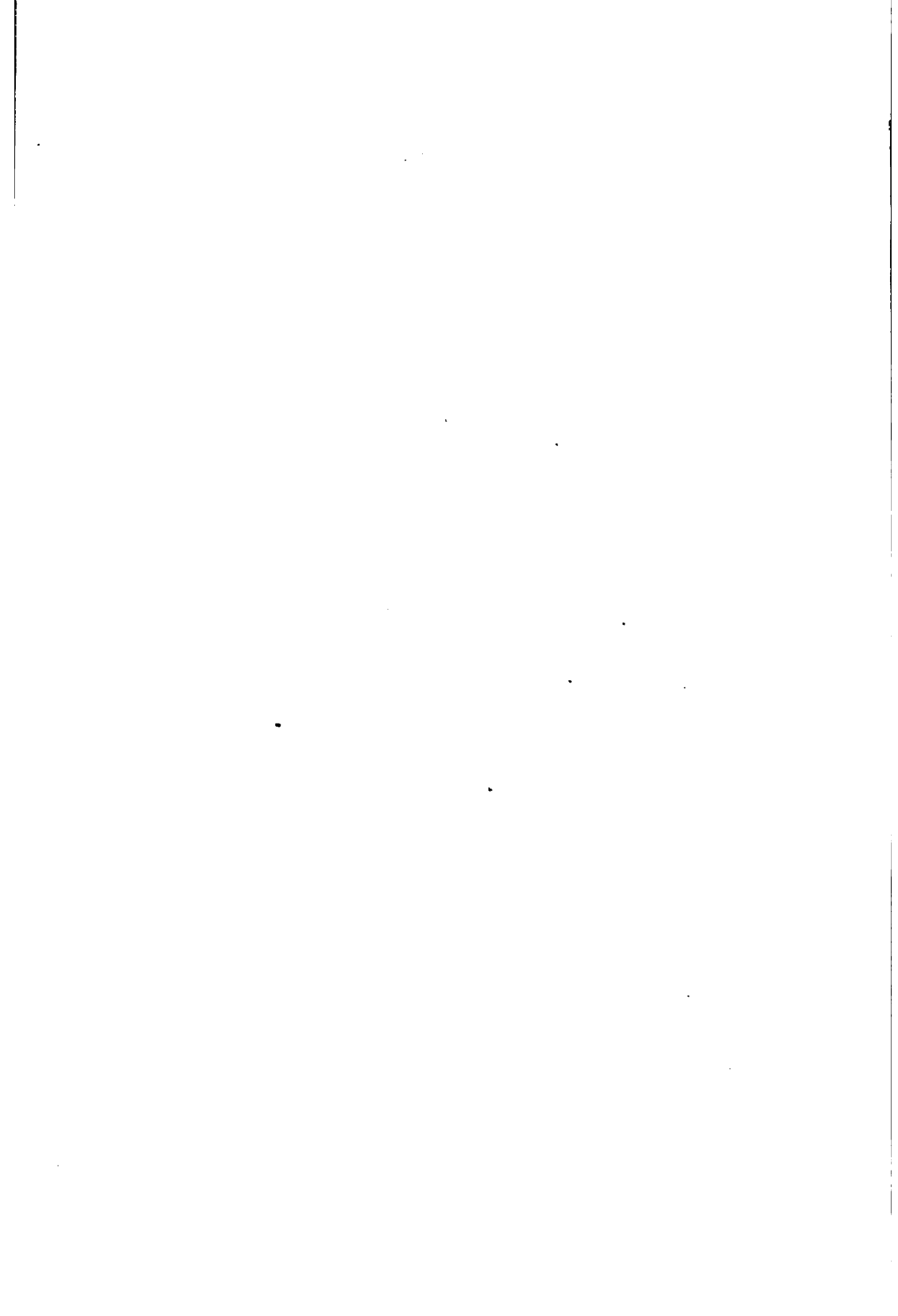
I will, however, endeavor (before sending this work to the printers in my sixty-seventh year) to supply some data concerning Australia, which will naturally be of more interest to my readers in the Occident than to those at the Antipodes.

In comparison with age, considerable similarity exists between the United States and Australia. When she was a century old, the population of the then Republic of the United States was eight millions; while that of Australia to-day, which is little more than 100 years old, is five millions. In area Australia is 2,974,561 square miles; compared with the United States' 2,973,890 square miles. Thus, Australia is the larger by 671 square miles. The climatic conditions on the coast of Australia, where the population is densest, are somewhat similar to those of California.

Australia is a British Federation. It is composed of five States which are on the mainland, and the sixth which takes up an adjacent island, Tasmania; besides which there is on the mainland a Federal Territory, the Northern Territory—the whole constituting the Commonwealth of Australia.



CANBERRA, NEW SOUTH WALES, AUSTRALIA. FEDERAL CAPITOL SITE



There are in Australia fourteen Houses of Parliament, two for the Commonwealth and two in each State. The legislators, Federal and State, total about 686. The Commonwealth has a Governor-General, and each State has a Governor. These are representatives of the King and are appointed by the Colonial Office in London, but their salaries, the cost of their upkeep, traveling expenses and the like, amount in round figures to about \$350,000 per annum, are paid by the Australian people. To these may be added the interest on city residencies, some of which are palatial, besides maintaining a country residence for each Governor.

Sydney, the capital of New South Wales (about the size of San Francisco) is the terminal port of most lines of steamers from Europe, the Orient and America; and is the center of an extensive Pacific islands trade. The population of New South Wales is 1,928,175, of whom 792,700 are in Sydney. The city is situated upon the shores of Port Jackson, the most beautiful harbor in the world, with shores 200 miles in extent. Sydney can also lay claim to surroundings of the most picturesque description, although its streets remind one of Boston and of (down town) New York.

Melbourne, the temporary capital of the Commonwealth and capital of the State of Victoria, is 600 miles southwest of Sydney, and is the best laid out city in the world, excelling even Los Angeles. The streets intersect each other at right angles, being of a uniform breadth of 120 feet. Narrower streets, 33 feet wide, intervene. Keen rivalry exists between Sydney and Melbourne, and the same degree of brotherly love characterizes their relations with each other as that between San Francisco and Los Angeles, or between Minneapolis and St. Paul. Melbourne has a population of 723,500 out of a total population of 1,430,758 for the State.

Brisbane, the capital of Queensland, is about 700 miles north of Sydney and has a population of 173,504. The State of Queensland has a population of 694,946 and has the largest cattle and sheep ranches in Australia. Its fruits and

flowers are mostly of a tropical kind. It also produces most of the sugar consumed in the Commonwealth.

Adelaide, the capital of South Australia, is about 600 miles west by north of Melbourne. It is a well-laid out city with a population of 225,317. The total population of South Australia is 441,465. Its primary products are wheat, wool, fruit, minerals, etc.

Perth, the capital of Western Australia, is situated on the west of the Continent and is 2,167 miles distant from Melbourne, with which it is connected by rail. The population of the State is 312,426, of whom 130,000 are settled in Perth. Mining is the principal industry.

Hobart, the capital of Tasmania (the island State) has a population of 41,509, out of a total of 208,873 in the State. Fruit growing is the chief industry of Tasmania, most of the fruit being exported to Europe.

Australian vegetation is not less remarkable for the large number of species than for their dissimilarity to those of other countries. The characteristic trees are the eucalypti, or gum trees, which produce excellent timber. Several of the acacias also have magnificent wood, and the bark of the black wattle is valuable for tanning.

In Australian orchards oranges and lemons can be picked throughout the year. Lemons come in handy as Australia is not a prohibition country; the amount of money spent on spirits, wines, beer and so forth averages \$22 per head out of the population.

Apart from the usual flowers found in all other countries we have blooming in Australia in the winter months a profusion of roses, daffodils, violets, jonquils, and so forth; as for vegetables, we grow green peas, lettuce, beets, cauliflowers and cabbages, all the year round.

The native flora of Australia, particularly in the States of New South Wales and Western Australia, is unsurpassed by the flora of any other part of the world.

Australia is one of the best fruit producing countries in

the world, and her wine, when aged, rivals the vintages of California and France.

It abounds in mineral wealth and its marvelous prosperity and progress are largely due to the enormously rich gold mines of Victoria, Queensland, Western Australia and New South Wales; the productive copper mines of Queensland and South Australia; the valuable coal-fields and rich silver mines of New South Wales and the famous tin mines of Tasmania.

Gems are to be found to a limited extent, but little effort has been devoted to searching for them. Probably the most valuable is the beautiful black opal. This gem is found nowhere else in the world, and is most popular among the theatrical profession, because, unlike the white opal, it is reputed to bring good luck. Sapphires of varied colors and great brilliancy are found in Queensland. To these may be added diamonds—which, however, are scarce—topazes, amethysts, garnets, spinel rubies, chiastolites, malachite, turquoises, beryls, emeralds and agates. In the coastal waters of North and Western Australia valuable pearls abound. These one can obtain by simply diving under water and picking them up.

ANIMALS.—The native animals are even more peculiar and anomalous than the plants. Marsupials are the characteristic mammals of Australia. The most remarkable marsupials are the kangaroos, the largest of which are about five feet high, and weigh about 200 pounds. The smaller wallabies and rat kangaroos are much more numerous. The opossums are marsupial animals, but quite distinct from the true opossums of America. The native bear is a kind of sloth, not much larger than the opossum. Of all animals found in Australia, the most remarkable, perhaps, is the duck-billed platypus or water-mole, which is a mammal somewhat resembling a mink, but has a bill and web feet like a duck, also lays eggs and can live on land or under water. Its fur is most valuable.

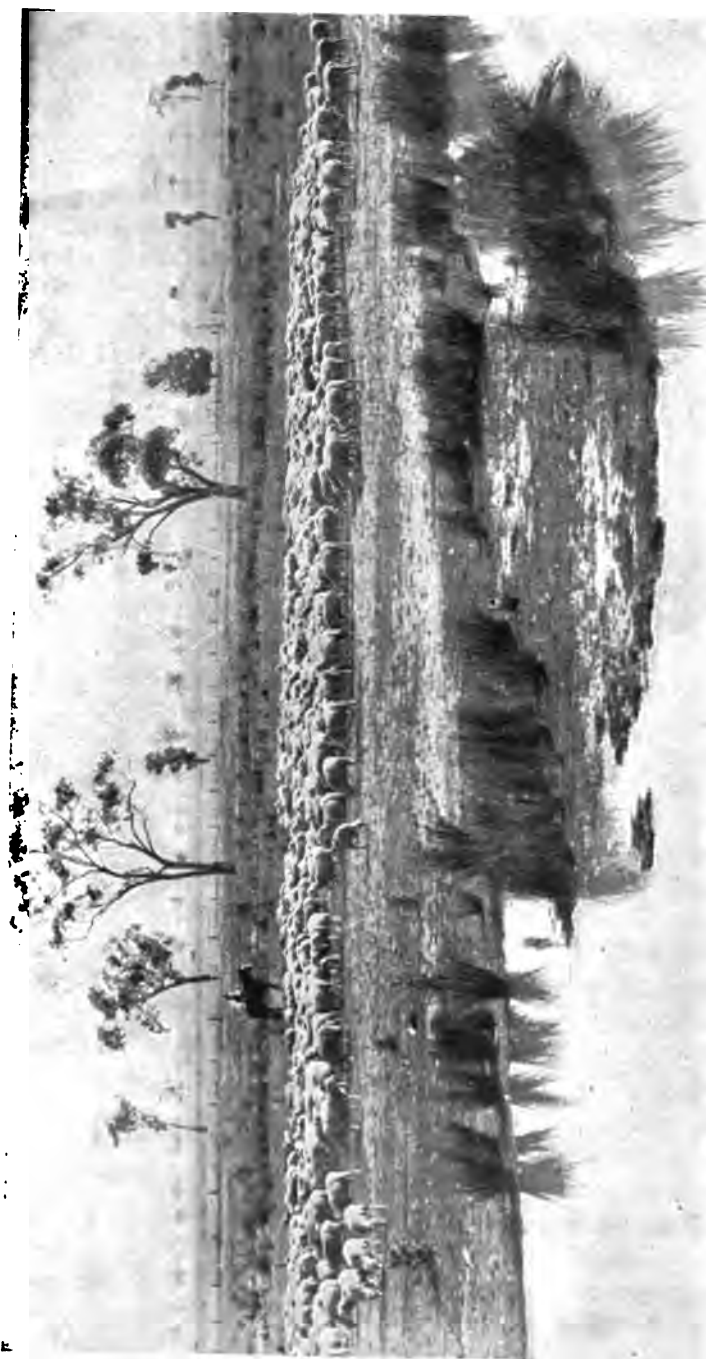
BIRDS.—The variety of bird life in Australia is remark-

able, and of over six hundred distinct species. Parrots, cockatoos, and parakeets, are numerous. Eagles, falcons, hawks, and owls abound; the lyre bird and bower bird, with numerous species of pigeons and doves, are all famed for the beauty of their plumage; the laughing jackass or kookaburra and the mocking bird arrest the attention of the traveler by their extraordinary cries. Among the larger birds are the black swan, the brush turkey, and native companion, a water bird somewhat like a gigantic crane in appearance, and the emu, a kind of ostrich, and the largest of Australian birds.

Being an outdoor country, sports of all kinds are popular in Australia. Horse-racing takes pride of place, the principal feature being the Melbourne Cup, the prize of which is \$35,000 and an attendance of 100,000 to witness the race is not unusual. No betting or wagering is permitted except on the courses, and there is a law prohibiting the sale of tickets for racing sweeps, or lotteries. The post-offices are closed to any letters addressed to any lottery agency, yet in spite of this over \$15,000,000 worth of prizes pass through Tattersall's Sweeps annually. Tattersall's headquarters are in Hobart, Tasmania, and is fairly conducted—the local government collects a percentage on every ticket. Other sports indulged in comprise cricket, football, golf, tennis, rowing, baseball, bowls, swimming, etc.

Involved largely in the future and the progress of Australia, not to say the future of the entire Pacific, are the Western Pacific Islands. Owing to the prominence into which the islands, previously owned by Germany, but recently occupied by Japan, have come—the Marshalls, the Carolines, and the Ladrões (except Guam), I decided, prior to leaving San Francisco early in 1919, to await my return to Australia and obtain additional particulars concerning them.

On reaching Sydney I met Mr. Thos. McMahon, who had just returned and who supplied me with the latest existing conditions in the Western Pacific and New Guinea Islands. I also interviewed many planters, traders and captains of



SHEEP STATION, AUSTRALIA

trading schooners, together with other reliable authority, whose names (owing to the positions they hold) I cannot disclose.

My surprise was great when I studied closely the position of the Caroline and Marshall groups, the latter being within 1,800 miles of the American territory of Hawaii, and distant from Japan about 2,000 miles. These islands, and also the Gilbert and Solomon groups, are out of the ordinary steamship routes, between America and Australia. It will be seen from a map that Japan by her action has skirted the Philippines and reached across and encircled the island of Guam, an American possession in the Ladrone Islands of 210 square miles and a population of 14,000. This brings Japan's possessions near the center of the Pacific and half way between Japan and Mexico. No other country has acquired such a vast area of rich territory during the last half century, with the exception of Australia, which has obtained German New Guinea, comprising more square miles and certainly a greater native population and a fair amount of already profitable development. However, in justice to Japan, I feel sure that she will make the best of her new possessions. Likewise, she will be very active—in more directions than one. Certainly, with this new competition in the field, the days of the Australian monopoly of the island trade is gone.

PAPUA

(BRITISH NEW GUINEA)

THE second largest island in the wide Pacific, and a gift from the British crown to the Commonwealth of Australia, it has a productive wealth that has scarcely been touched, and opportunities for various enterprises that will astonish the world.

In its Crown Colony days this island was known as British New Guinea. To-day it is called Papua, and its territory lies wholly within the tropics and extends east and west upwards of 800 miles, and north and south 200 miles.

Papua has an area of 90,000 square miles; a magnificent territory of palms and plantations, shining beaches and imposing mountains. The potential commercial wealth is bound to attract white men, when its wealth of opportunities, climatic condition and supply of labor become known. It possesses great variety of commercial timbers—an expert says that every timber needed for commercial purposes can be found there.

The white population is approximately 2,000, the native estimated at 300,000. The island is remarkable for divergence of racial types, from the pigmy and pure Papuan folks of the mountains to the stalwart peoples of the coasts. There are the apelike natives to be found toward the Ely River, then the natives of a tribe with distinct semitic features and characteristics (they are the traders and money-lenders), and then in the Port Morseby district the mop-haired, handsome-faced, well-set people. In all uncivilized tribes the customs are

very primitive, but mission work is very active, and gradually the wildest natives are being approached and educated with excellent results, and a weaning from their barbaric instincts. The Government, too, has been very energetic in getting in touch with every tribe, even those in remote places, such as the high mountain tribes, who perch their villages like birds' nests on the summits or spurs of mountains, and who are aggressive and most unfriendly. The Government wisely teaches natives the rudiments of agriculture, and for this purpose patrol officers are continually tramping the country instructing the natives, as well as encouraging them to give up cannibalistic habits and tribal warfare.

To some people Papua is the most disappointing place in the world, and for no other reason than that it is found to be something more than a huge coral reef covered with graceful palms. It is an island paradise of unmatched scenery; it is remarkable for freedom from savage and depredating animals, from objectionable insects, except the vicious mosquito in some parts only, from snakes in many places. It is the homeland of the gorgeous birds of paradise, and many other bright-plumaged birds.

Private enterprise is doing amazing things to-day in developing Papua's natural resources, and when capital finds its way to these shores, the rich soil will respond in a way that will surprise the world.

The island's chief claim to wealth lies in its harvest of cocoanut, rubber, sisal hemp, tobacco and the oil fields of the district of Valala, these being tested and prepared by an American expert. Its mineral wealth lies practically untouched, and despite the fact that mining experts have proclaimed the island possesses a great variety of minerals, including gold, copper, silver, tin, cinnabar, iron, manganese and graphite; and, it may be added, gems, topaz and beryl. In copra, alone, this island is exporting thousands of tons. The richness of the soils is demonstrated in the number of catch crops—coffee, cocoa, spices, medicinal herbs, etc.—that

can be grown between the rows, while cocoanuts and rubber trees are coming to maturity

Papua is not by any means a land of fever and trying climate, nor is it the roaming ground of savage or indolent natives. Since it has become a self-governed country (though under the Australian Federal Government) it manages many of its affairs well. The island is thoroughly policed and patrolled, and many modern conveniences are to be enjoyed in the larger settlements. The transport systems for the plantations is fairly satisfactory, a body of native constabulary is maintained, useful in many ways, but mostly as village constables, taking the place of chiefs and maintaining order in their districts.

The country appeals to robust, manly natures; there is, indeed, a novelty in all that cannot be excelled by many of the islands of the South Pacific.

The laws of the land are very strict regarding the handling of native labor, and penalties are severe for breaches of these laws. No excuse is valid for the striking by even so much as a cuff any native, whether servant, laborer or stranger. The days of native exploitation have long since gone and can never come again—proof that the island is progressive and solid. The supply of native labor is capable and efficient and is one of the country's big assets, and the government is guarding against any abuses in the recruiting of this labor for the plantations.

A Papuan boy or girl can be taught practically any trade or class of manual work. The men quickly come to understand the details of motors and other complicated apparatus; after watching a piece of equipment taken apart once or twice, they are competent to put the parts together correctly without help.

On the eastern coast lie the sugar lands that will one day in the future bring this part of Papua great prosperity. The native sugar cane is claimed by experts to be the best for density and sweetness.

Besides the mainland known as New Guinea, Papua comprises many groups of small islands such as the Trobriand, Woodlark, having one of the most important wireless stations in the Pacific, D'Entrecasteaux Louis de Archipelago, Samarii, and many others. All these smaller territories are inhabited and many planted up, while Samarii, called the "Gem" of the Pacific on account of its scenic beauties and its setting in the bright waters of the China Straits, a kaleidoscope of colors. Samarii is also the commercial center of the territory of Papua, as Port Moresby is looked upon as the seat of government.

GERMAN NEW GUINEA

THE full meaning of the name "German New Guinea" is by many not yet understood, for it does not merely imply that part of the mainland of New Guinea, defined as Kaiser Wilhelm's Land, but all the territory controlled from the central seat of government at Rabaul, and so comprising Kaiser Wilhelm's Land, Bismarck Archipelago, the German Solomons, Nauru, the Carolines, the Marshalls, the Marianen group, and various little islets scattered about these bigger territories.

The totals of numbers of islands, area, and populations, white and black, have never been properly estimated, but it may be accepted that the following figures are somewhat near the mark: area a little over 100,000 square miles; number of islands, quite 1,500; white population, mostly German, 700, and natives, 700,000. These figures will satisfy the reader of the big hold on the Pacific the Germans have now lost. The native races are slightly mixed, but the greater number are Melanesians. The Germans did not bother much in studying the native races or their characteristics, and that is a work no doubt that will be undertaken by the new administration from Australia.

Leaving out the Marshalls, the Carolines and the Marianen groups, the rest of the German territories are remarkably mountainous in formation; indeed, many of the peaks run to over 10,000 feet. Another interesting feature of formation is the great Kaiserin Augusta River of the Kaiser Wilhelm's Land, and which runs for hundreds of miles through the land into the Dutch portion of the New Guinea territory; it is



T. J. McMahon, Photo

1. TAPPING RUBBER TREES, NEW GUINEA.
2. HARVESTING SISAL HEMP, WESTERN PACIFIC.

many miles wide from its mouth, and vessels drawing thirteen feet can steam up a clean channel for nearly 400 miles.

Right through the known parts of the German New Guinea territories the soils are consistently rich, and it is a fact that every product suitable for tropic climes can be grown safely and luxuriantly. German New Guinea offers conclusive evidence of the failure of the Germans in colonization, though possessed of some of the richest islands of the Pacific, and most liberally financed by the German Imperial Government in developing these islands—it has been rather the opening up of a few big plantations and trading companies with all the emolument for a few officials and a dozen or so of wealthy men, than any attempt to put people on the land, and bring about a large population of white people.

The war disclosed the fact that German actions in these Pacific islands was merely a camouflage to disguise secret designs in acquiring all the islands of the South Pacific, and then to bring into existence a German empire in the Pacific, when colonization on a wholesale plan was to be carried out.

Rabaul, the capital of German New Guinea, is a glaring instance of this camouflage, and as it is a port of entry of the territory, visitors and travelers in pre-war days revelled in the grand impressions gained of this charming town, and did not hesitate to put in print the imaginations that the whole of German New Guinea, to possess such a splendid capital, must be thickly populated with Germans and developed in an extensive and extraordinary manner. Travelers of late years have disproved all these conjectures, and as a matter of fact there is not one-tenth the amount of serious development in the German Islands as in Papua, British New Guinea, and Port Moresby. The capital of Papua, outside its natural beauty, is a shabby place, hence the bad impression travelers still get of the supposed unprogressiveness of Papua. Rabaul, in its compact completeness of every modern convenience, its ornate public buildings, elegant private bungalows, and magnificent botanical gardens was designed and managed by an

expert gardener sent out by the late Kaiser himself, who, by the way, is one of the largest shareholders in all the commercial ventures of the territories. Every street has its striking avenue of delightful shade trees, and in short the town is so beautifully laid out as to compel admiration.

One thing the Germans did well was to build roads, whether they were wanted or not, through and round every island, to every trading station, and past every plantation. There is no doubt in many of the laws and regulations of the Germans for trading and development in the Pacific, they were based on sound common sense and practicability, especially in the management of native labor, and many Britishers who held land and plantations, or traded in German New Guinea, were loud in their praise of the German fairness and encouragement to commercial progress; but, on the other hand, they never failed to exercise a species of tyranny that proved exasperating to all others than Germans; there existed a constant subconscious feeling of uncertainty of their motives, and their cruel neglect and oppression of the natives brands them as inhuman—and so, for these reasons, added to the German Imperial designs for the conquest of the Pacific, the end of German influence and power is welcomed in every sense.

Since the occupation of German New Guinea by Australian soldiery, and since Australian administration, the progress of the islands has been most manifest, the reason no doubt being that many of the big plantations have come into the years of fruitfulness and profit. The Australian administration has been responsible for a decided change in native affairs, exploitation has ceased, proclamations have been issued stopping the recruiting of native labor for the plantations—proclamations also exist disallowing the flogging of natives; roads have been widened, remade and extended, and the triumph of the administration has been the splendid effort to destroy the malaria mosquito, which is a very troublesome factor. A whole army of natives is employed in Rabaul alone to carry

out sanitary regulations, in keeping the roofs of houses clean, the guttering free from water stoppages, the street gutters flushed and free, also drains, watercourses covered and protected from the possibility of mosquito breeding, the very holes in the trees, of the avenues, are searched for and instantly filled with cement to prevent the lodgment of water, and so at every hand the poisonous insect is baffled and driven off, and the results are marvelous to the health of the soldiers and German settlers, also natives. This excellent feature of the Australian administration has proved that in time there should be no malaria in any of the islands, for science and wise regulations strictly observed can completely overcome malaria, the pernicious ailment of the tropic lands.

Exploration was not encouraged in the German time, hence the reason for the scanty knowledge of the minerals, timbers and other potentialities of German New Guinea. Within the last five years sufficient data has been gathered to show that Kaiser Wilhelm's Land is very rich in gold, coal, oil, and innumerable valuable timbers. Prospecting by Australian miners has already begun, timber experts are making urgent inquiries, oil and coal experts are actually in the territory investigating. Time and exploration alone will tell what the islands of the German territory possess and can do; at present there are parts unknown to white men.

The planting of the cocoanut has been the chief effort of the Germans, and some of the plantations are very well improved, and some running into many thousands of acres in full profit. In a much smaller degree, rubber, cocoa, coffee, spices, pepper, medicinal herbs, and other tropical plants have been successfully cultivated enough to warrant any attempts on a very big scale. Cattle, horses, and even sheep, once acclimatized, and in the first cases of the hardier types, especially those brought from Australia, do remarkably well, while pigs are so numerous that they have created a trade. It is not known for certain if the native pig is indigenous; it certainly was an inferior animal, but since the arrival of the Germans,

who brought from Germany first class boars, the whole breed of the islands has improved; in fact, the Germans had a law to prevent a poor class of animal, and the natives quickly realized the advantages of a better breed.

There is a commercial future of the greatest importance in these German New Guinea islands; they are, too, a direct connecting link, as it were, between Asia and Australia, and this should mean, under wise administration, a great trade. Facilities for shipping are of the very best; the harbors are all safe and very deep. Rabaul, in particular, would make, and may claim to be, one of the finest and most useful harbors of the Pacific. The Germans recognized this and prepared plans and a place in the inner harbor near the town for the greatest dock in the universe. The deepest draught ships can enter this harbor, and with speed. Under progressive government, in ten years Rabaul should be one of the busiest ports of the Pacific.

THE STORY OF "BULLY" HAYES

For the following account of "Bully" Hayes, I am indebted to the pamphlets written by A. T. Saunders, of Perth:

No mention of pirates on the Pacific can be complete without allusion to the most famous and infamous of them all—"Bully" Hayes. For a period of some twenty years he pursued his freebooting way, the first decade of his operations taking him from one well-known port to another, his second decade more devoted to the line of the South Sea Islands, where his chances of being caught were fewer.

As near as any one can come to the date of his birth, "Bully" (Captain W. H.) Hayes was born in the year 1827 in Cleveland, Ohio. His first appearance on the scene of his depredations was in 1856, at Singapore, in the Straits Settlements. At that time, he was described as a charming young fellow with good appearance and pleasing manners, and among his other social assets was a voice of appealing quality. He sang well, and the ladies fluttered about him.

Also, a gentleman by the name of Webster liked the entertaining stranger. So much so, that he bought a barque, the *C. W. Bradley, Junior*, and gave Hayes charge of her. Without any ado, the young man set forth upon his career of crime. It is told of him that he visited various ports, where he invited leading gentlemen and pretty ladies aboard to partake of his hospitality and where he ran up bills in the name of his patron, Webster. In those free-and-easy days a shipmaster could decide many important questions for himself. He could charter his ship without consulting its owners, and determine his financial policy. Communication being so slow, the captain might let his owner "in" for many things of which he knew nothing. This condition gave "Bully" Hayes all the leeway he wanted.

And from this time on, his record is an amazing one, if his critics and commentators are to be believed. There are, of course, numerous contradictions. Myths and legends have become inextricably woven in with facts. In the prologue of "The Wrecker" Robert Louis Stevenson says: "Talk in the South Seas is all upon one pattern. It is a wide ocean, but a narrow world. You shall never talk long and not hear the name of 'Bully' Hayes." And that "talk" was wonderfully fruitful, for the stories about our pirate would fill several volumes.

Let us examine the evidence. Some declared that "Bully" Hayes was over six feet tall. Others were just as sure he was only medium-sized. Some whispered of his terrible temper and his wonderful swearing. Others found him rather gentle, fond of animals, and even inclined to religion. Some told of his countless alliances with women, white and native; how he tired of them, then murdered them. Others stick to proper marriages for him. He was accused of every crime on the calendar from simple cheating to wholesale murder. Defenders there were who white-washed everything brought against him.

"Bully" was certainly a remarkable man whose career and character ought to have inspired the buccaneer-loving Robert Louis to a great romance. It is a loss to literature.

One fact alone is undisputed—although one rumor-monger tried to have "Bully" Hayes fittingly hanged from the yard-arm—and that is his

death. He was killed by his cook in a quarrel aboardship in 1877. The cook hit him over the head with a belaying-pin or some such object, then threw him over the side into the sea.

Seldom is one given a chance to read a pirate's letter, especially one in his own defence, and I think it is a unique document. "Bully" Hayes wrote a letter of self-defence to the *Sydney Morning Herald*, which in January, 1860, had reprinted an account of Hayes' life from the *San Francisco Bulletin*, entitled "The Story of a Scoundrel." Together with his letter, which denies almost everything cited against the pirate, "Bully" enclosed letters and other documents from reputable persons verifying his good conduct and character. Here is the letter of this jolly buccaneer :

Sir:—In your issue of January 6, 1860, you have inserted an article from the *San Francisco Bulletin* respecting myself, not inaptly termed a story. Much as I am pained by the perusal of the libel, I feel some pleasure in the reflection that I have living persons in this city who can, on oath when necessary, contradict the gravest charges, which fact, coupled with my own conscious innocence, support me in my trying adversities. The bitter malice and the unrelenting cruelty of the whole tenor of the article is at once apparent from the very beginning.

A lie in itself, and even if true only serves to show the intense hatred of the writer, without affecting me. If the offence alleged against me were true, then Providence has been signally merciful in rescuing me from all the perils and privations of shipwreck. That I am not hung, which the kindly writer suggests I ought to be, is not from his clemency. One would have imagined that my great misfortune would have spared me this last calamity, but I find that the mercy of man is more merciless than the raging sea, and even the greatest misfortunes will not shield their victim from the unscrupulous or the cruel stings of calumny.

And now for the story. My father was not an innkeeper, or, as the writer maliciously says, "poor, and not very respectable, being the keeper of a grog shop."

This very commencement of the writer's overworked and lying tale shows how his mind was tinctured with illiberal ideas. Even if my father had been poor or had been an innkeeper, I have yet to learn that poverty is a crime, or that any lawful trade or calling is disreputable if respectably carried on. If otherwise, the writer, whoever he may be, might have contented himself with exposing my supposed delinquencies without insulting my unoffending parents. It is easy to string together a parcel of lies, or innocent truths worked up into an odious fiction to gratify the morbid tastes of a depraved public, a danger that will always exist as long as most persons too readily believe the slander rather than credit the little good sometimes spoken of a man. The veracious writer goes on to say I was married in Cleveland. That is false. "That in 1852 I mistook my neighbor's horses for my own, and escaped the indictment by a flaw." That is false. I defy the world to prove I was ever indicted, and, moreover, in 1852 I was in Calcutta. That I married another woman is also false, and if in San Francisco a gentleman was foolish enough to set up this so-called married woman in a retail liquor saloon it must have been after I left, and for his own personal purpose, not mine. The fate of the *Otranto* is likewise false. True, I had command of her, and sailed to China, but instead of being purchased by my suggestion she was not sold while I was in San Francisco, and I only got the command

by recommendation to the owner. In China she was sold by that owner's agents—John Purvis & Sons—as she was an old vessel. In this they exercised their own discretion, and paid me my wages, 1,700 dollars. The *Otranto* was never seized, nor was a single dollar raised on bottomry. I then purchased the *C. W. Bradley, Junior*, upon which I did not raise a bottomry, but which I mortgaged for 12 months for 3,000 dollars. This vessel cost me just double that sum, and the mortgagees, thinking she was so old as to run the risk of condemnation, urged me to sell her when I reached Adelaide, which I did, honestly placing her in their agents' hands, who sold her and paid their principals.

The story of the tailor is false from beginning to end. It is also false that the action brought by me in Adelaide was lost as fraudulent. I certainly lost my just debt, not on the ground of fraud, because my claim prevailed, but because the ship I put in suit with other claimants, although sold, only paid the seamen's wages and prior claims, the law swallowing the balance.

Again, I am charged with getting 2,000 dollars from a passenger to invest in liquor for sale to steerage passengers. This dwindles down to 80 pounds, which a passenger did invest in grog, disposing of it as required, and paying himself. Another falsehood—my wife procured a divorce. This is cruelly false, both to her and to me. I never ill-treated her, as those who know her best can testify. The catalogue of my alleged crimes does not terminate here. The *Ellenita* was my own vessel, and it is said I ran away with 2,000 dollars' worth of jewelry, and 6,000 dollars in cash, deposited for safe-keeping by the passengers. The 6,000 dollars was, in reality, 60 dollars only, deposited by the cook, now here to testify the same, and if that or fifty times as much was lost in the *Ellenita* does this lying writer lay also the act of God to my charge? Am I to be charged with crime because I was unable to preserve money from the shipwreck when I nearly lost my life—my ship actually uninsured? The jewelry is another fabrication. I bought nothing but a few trinkets, paid for in cash, by the desire of my, as is said, ill-treated wife.

Again, he also says—"I would not dare to show my face in Australia or China." This prediction might have been fulfilled had the numerous charges so ruthlessly leveled against me been true, but my very appearance here now gives the lie to that assertion, and I have dared whatever he could not give me credit for in point of daring, simply because I have nothing to dare, although I freely confess that had even half of his lying tale been true I would not dare to face Australia again, or, indeed, any of my former scenes.

And now for the satisfaction of this ingenious writer. While I have denied what is false I will confess what is true. I did do the Sheriff of the Sandwich Islands, and would do so again under similar circumstances, which are plainly these:—Having sprung a dangerous leak I pushed in for the nearest and most convenient place for immediate repairs. I discovered when too late that the custom of the Sandwich Islands was only to allow an entry in a proclaimed port, and the overzealous and acute sheriff too readily suspected I might only put in to smuggle. However, I had nothing but a cargo of potatoes, onions, and beans, of which they had plenty, and as I neither did nor intended harm, I did not choose to be arrested upon an unfounded suspicion of a bare intention to do an act toward which I advanced not a single step. For the sake, therefore, of

my passengers, and knowing that in some places the most senseless and disgraceful customs laws prevailed, I thought it better to evade an arrest which I thought morally wrong, productive only of vexation and delay. I scarcely think this jolly sheriff believed the justice of his first suspicions and after he saw what was on board, for he and some friends who accompanied him spent a jovial evening, he actually helping me to work the ship out, being an old sailor, and certainly discharging himself in his new capacity far more creditably than the one in which he came to me.

I now take my second farewell of the sheriff, recording it to his honor that he did better duty in my ship as a sailor than ever he did as sheriff, in which former capacity I should ever wish to meet him again, at the same time never forgetting the cordial shake of the hands, the drink he took before he left me, parting the best of friends.

"Good-by, sheriff; how little your employers dream of the good old soul that lies concealed under your parchment covering."

And now, Mr. Editor, I have to solicit the favor of the insertion of the letters enclosed herewith in corroboration of my contradiction of some of the graver charges, at the same time expressing my regret that I can only avail myself of such accidental evidence as that now on the spot, while the writer has not scrupled to ramble over many years and many facts and then anonymously casts them to an irresponsible press, which, taking advantage of my absence, lends itself as the foul-mouthed organ of some secret and malignant enemy.

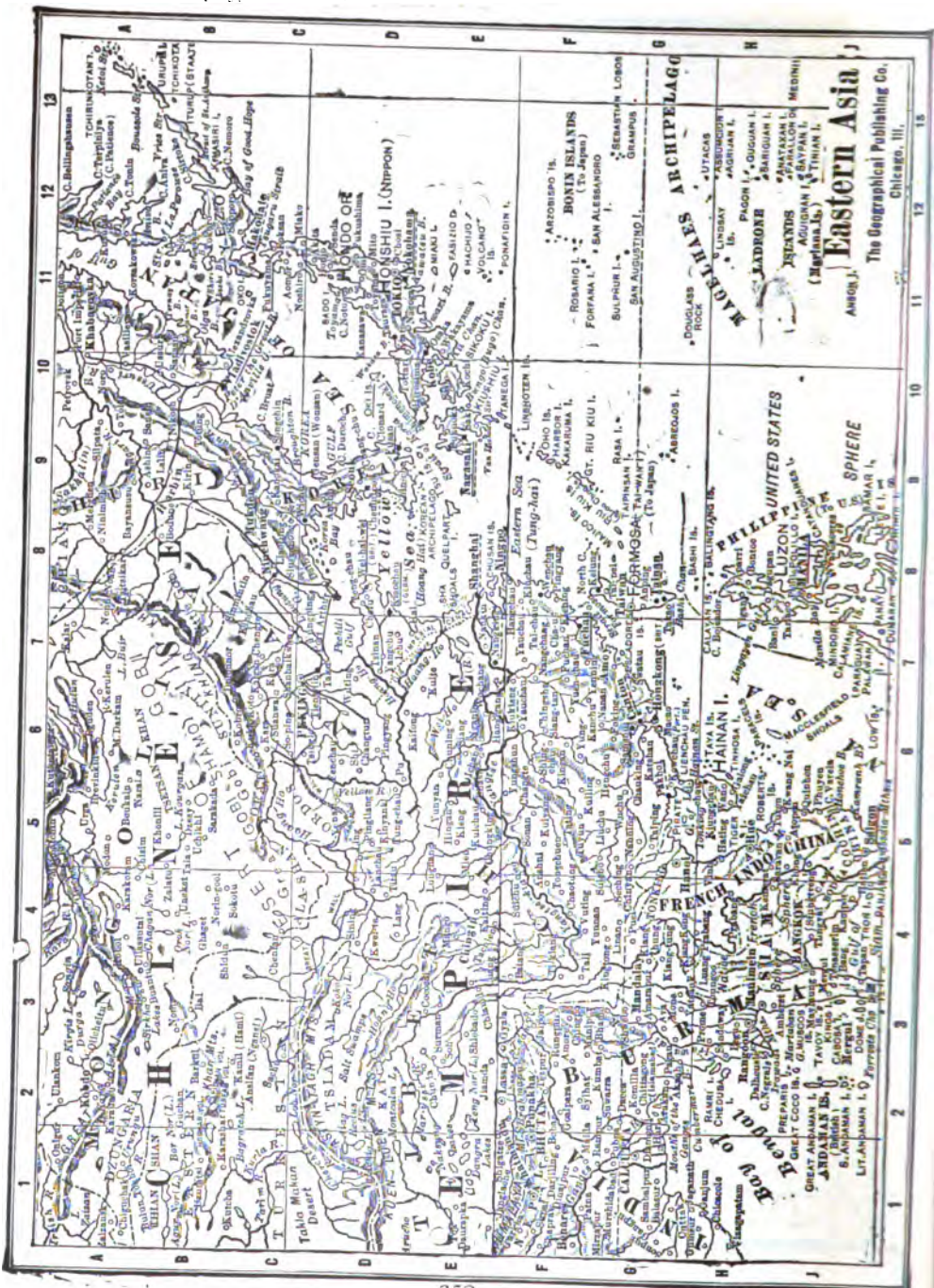
W. H. HAYES,
Late Captain of the *Ellenita*.

LATEST FIGURES OF FOREIGN POPULATION IN
CHINA, SUPPLIED BY MR. THOMAS SAMMONS,*
FOR MANY YEARS AMERICAN CONSUL-
GENERAL IN THE FAR EAST

	Persons		Firms	
	1917	1918	1917	1918
American	5,618	5,766	216	234
Austrians	317	271	18	16
Belgians	324	360	18	20
Brazilians .....	....	16	....	1
British	8,479	7,953	655	606
Danish	450	475	17	23
Dutch	298	377	22	24
French	2,262	(a) 2,580	127	156
German	2,899	2,651	132	75
Hungarian	18	7	....	....
Italian	416	535	42	36
Japanese	144,492	159,950	2,818	4,483
Norwegian	277	279	7	11
Portuguese	2,297	2,417	51	43
Russian	51,310	59,719	2,914	1,154
Spanish	300	298	8	9
Swedish	513	530	3	3
Other Powers	215	343	7	36
Total	220,485	244,527	7,055	6,930

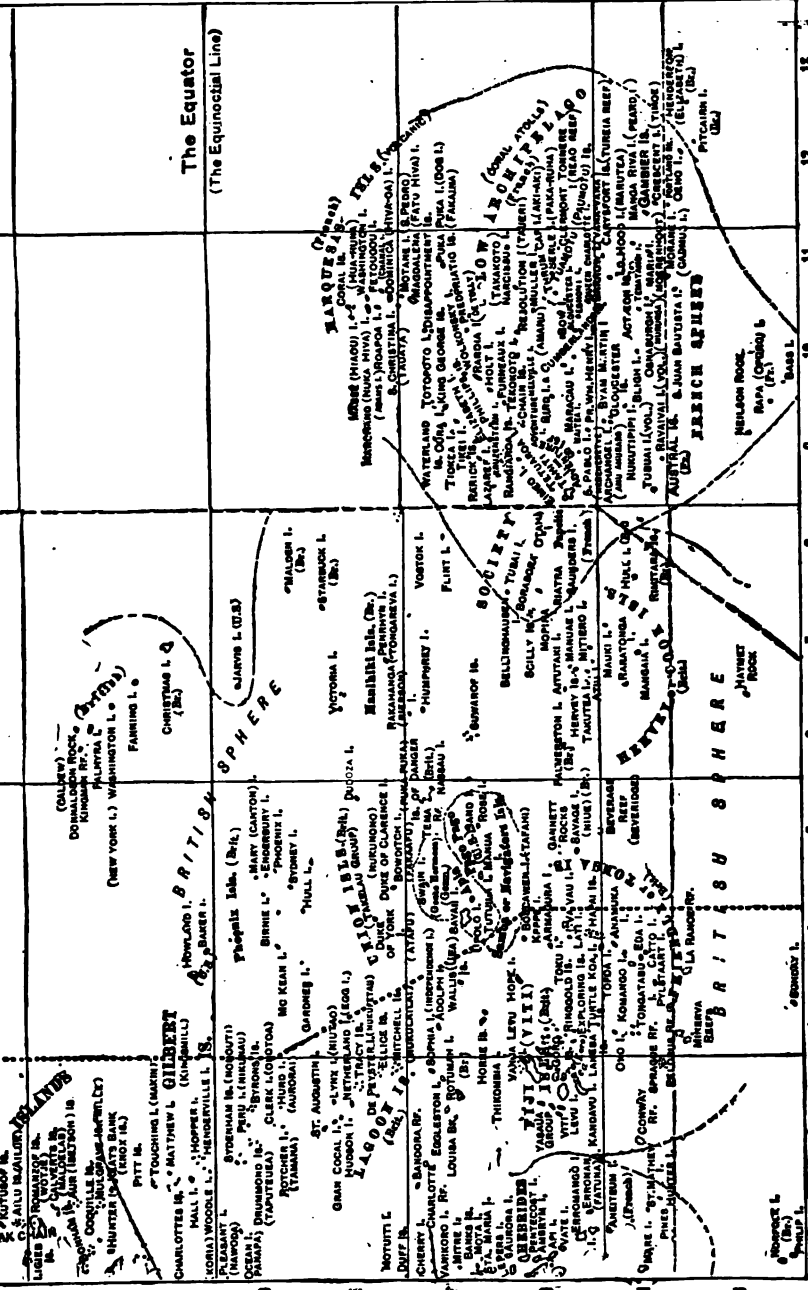
* Incorrectly spelled Salmon on page 58.

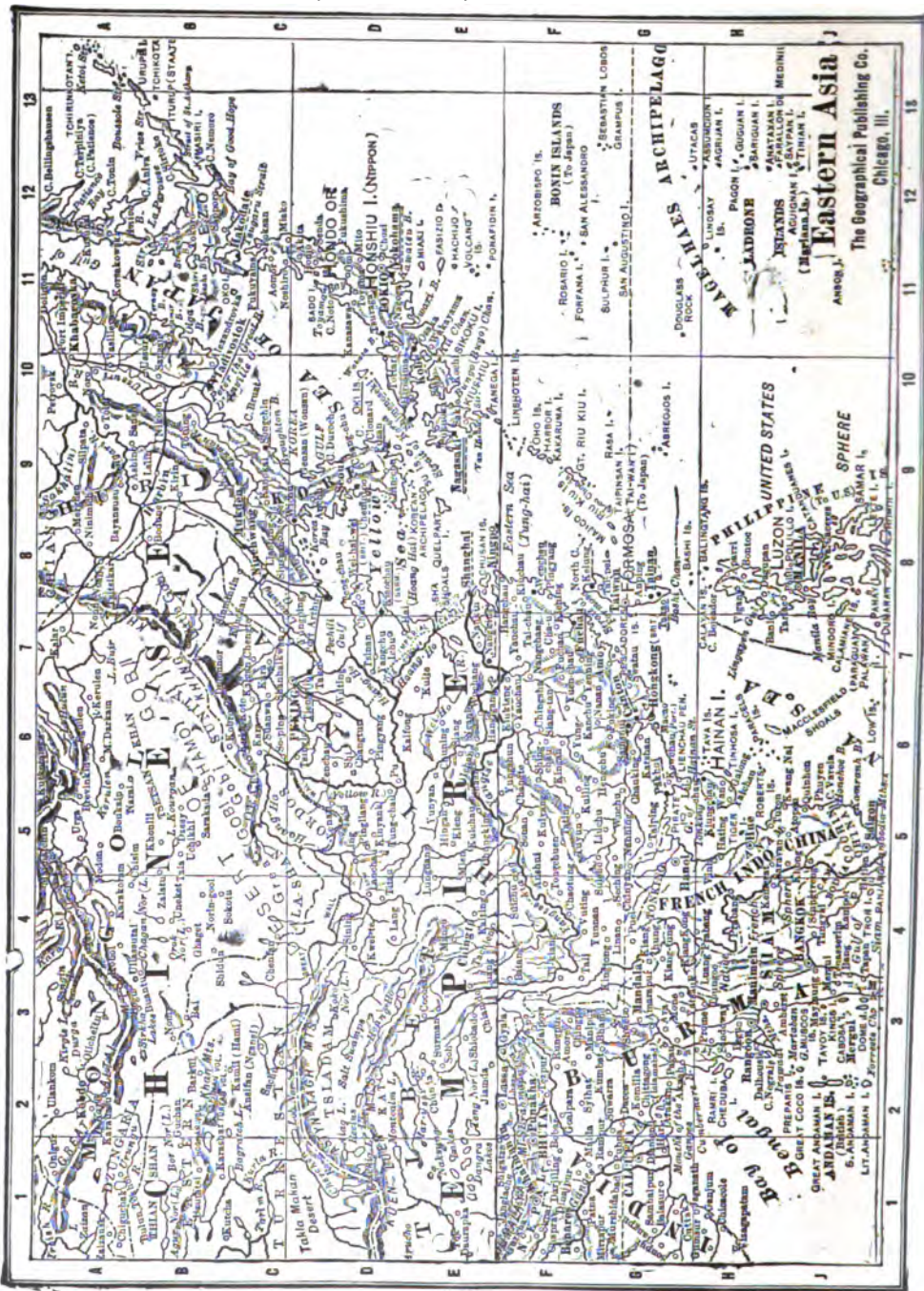
(a) Including 918 Protégés.

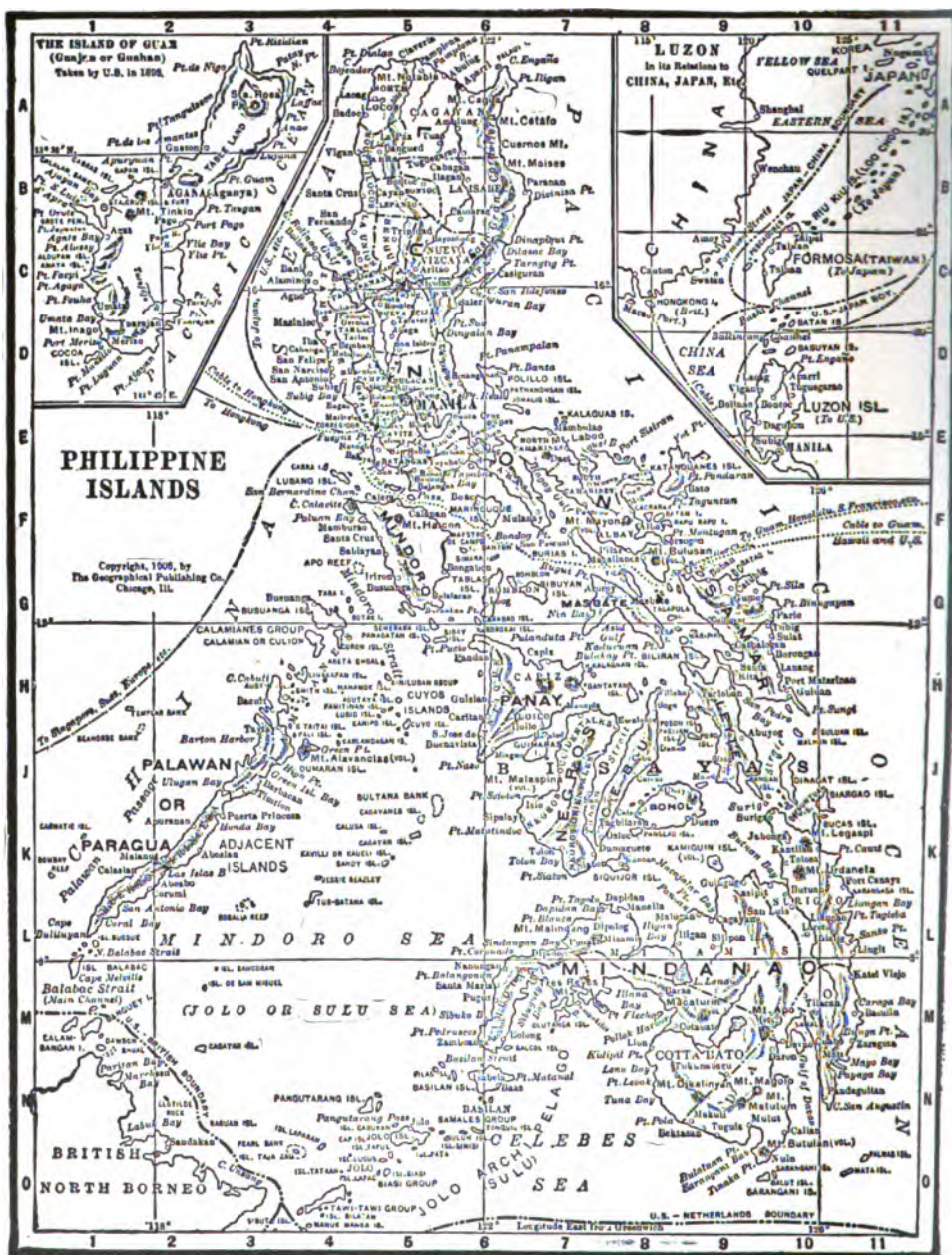


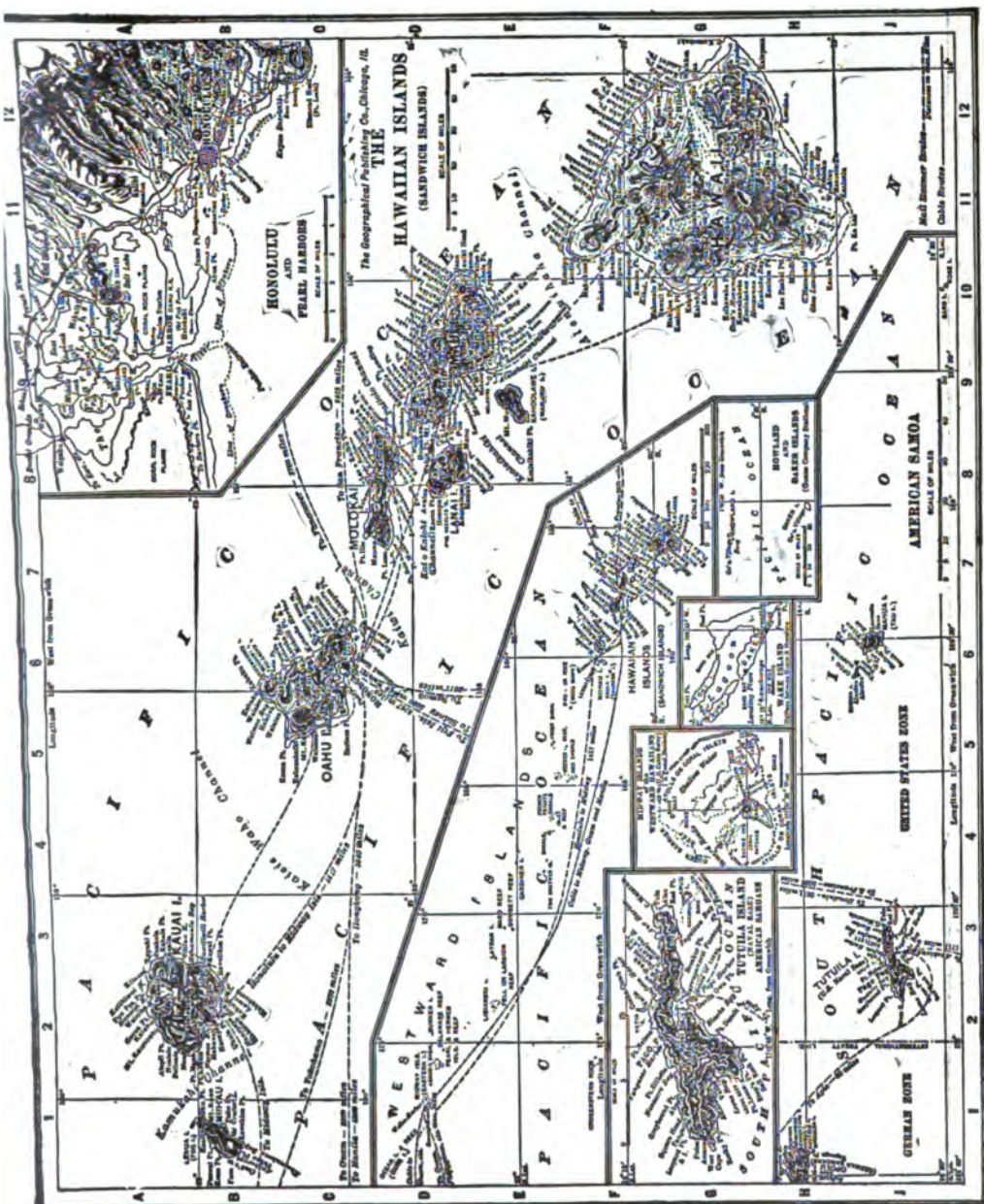
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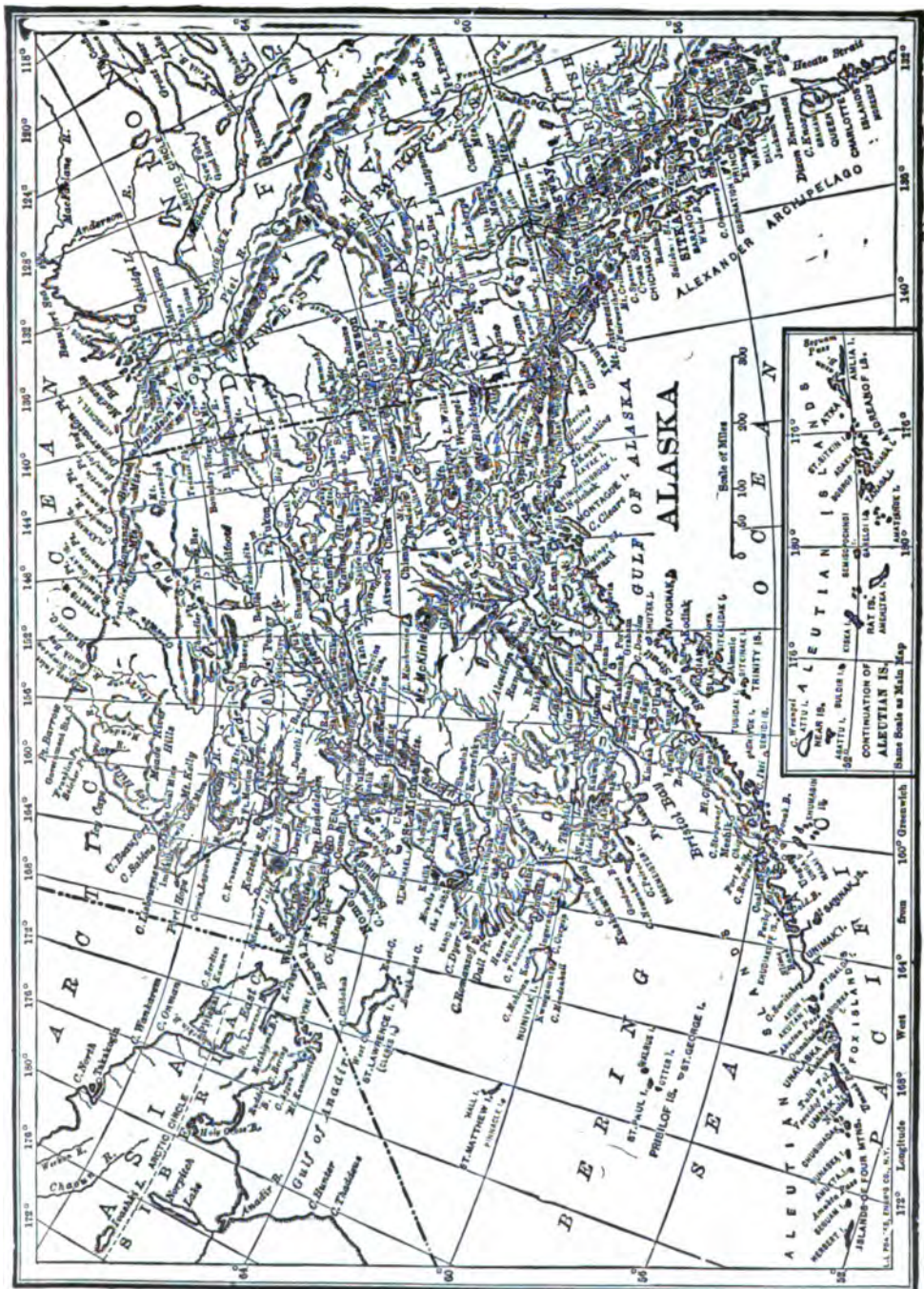




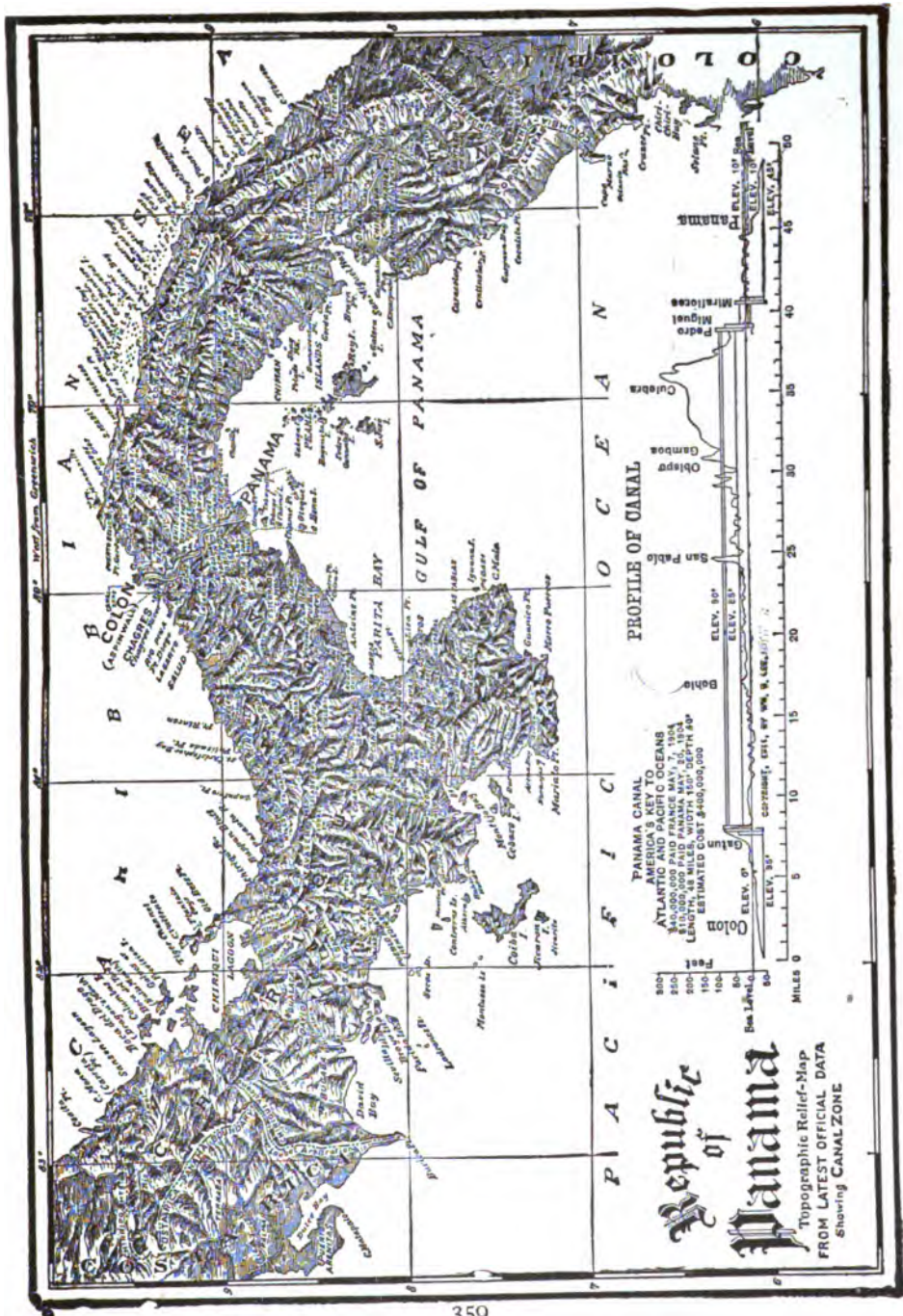




MAP OF CALIFORNIA







To Write Abstracts

INDEX

- Abduction of natives for laborers in the Pacific islands, 292
- Ablakok, "Reindeer King," of Alaska, 273
- Abstinence from alcohol partly observed on Pacific steamers, 288
- Adelaide, capital of South Australia, population of, 334
- Aeon*, wreck of the, 95-97
- Alaska, the Land of the Midnight Sun, 236-253; from Vancouver to, the most attractive tour in the world, 236; summer temperature of, 237; fishing industry of, 238, 239; English control of, in 1820, 240; interior of, rich in blooms of wild flowers, *ib.*; teams of huskies for traveling in, 245; interesting incident when the United States took possession of, 252; mining in, 253, 254; wealth of gold, coal and natural resources of, 261-263; purchase of, 278, 279; fishing in, 278
- Alaska-Gasténau and Alaska-Juneau Mines, 242
- Alaska Telegraph Signal Corps, 224
- Alaskan game, 267-270
- Alcohol aboard ship, partial restriction of, 288
- Alert Bay, Cormorant Island, noted for artistic totem poles, 237; amusing story of, *ib.*
- Alex. Yates*, sailing ship, good luck of Captain Dunham in saving it from foundering, 154, 155
- Alligators and crocodiles, difference between, 28; victims of, 31
- Alofa, French Pacific island, 16
- Aluminum works at Kensington, near Pittsburgh, Japanese visit to, 68
- Alverstone, Lord, English member of Yukon arbitration board, 240
- Ambergris of whales the base of all perfumes, 206; the most valuable product of the sea, *ib.*
- American Church in Japan, an, 50
- American fleet, welcome to the, in Australia, 314-316
- American - Hawaiian Steamship Company, first to adopt fuel oil for maritime use, 228
- Amusements on Pacific voyages, 13
- Angaur Island, phosphate deposits on, 98
- Antisarlock, Mary, "Reindeer Queen" of Alaska, 273
- Anvil Creek, Nome, Alaska, gold found by three Swedes, 262
- Apia, Samoan Islands, 1; last home of Robert Louis Stevenson, 145; festivities of the islanders, 147; influenza introduced into, causing 9,000 deaths, 159
- Archeological puzzle of the Pacific, an, 89
- Architecture of Tongan churches, 135
- Areas of countries on the Pacific, 307
- Armor-plate produced by Japan, 62
- Arrack, a popular drink among Australian blacks, 199
- Arrogant*, British cruiser, fuel changed from coal to oil, at Davenport, 228
- Aru Island, Dutch East Indies, greatest pearl-shelling grounds in the world, 29
- Astrolahe*, one of La Pérouse's ships in Botany Bay, 2
- Athletics popular in Fiji islands, 184, 185
- Atmospherics, severity of, in the tropics, 221
- Atolls, coral formation of, 112
- Atwood, Captain, great wrong inflicted on, for loss of the *Elin-gamite*, 21
- Auckland, New Zealand, visited by American fleet, 176
- Australia, Captain Cook's journey to, 2; first steamship to arrive in, 3; hiring of native labor in, 291;

- description of, 332-337; area of, 332; larger than United States, *ib.*; climatic conditions of, *ib.*; composed of six States and a Federal Territory, *ib.*; flora of, 334; mineral wealth of, 335; animals of, *ib.*; birds of, *ib.*; sports of, 336
- Australian vegetation, large number of species, 334; orchards, *ib.*; flowers, *ib.*
- Author's voyage in 1918, from Sydney to Honolulu, 317, 318
- Aylesworth, Sir Allen, Canadian arbitrator in Yukon frontier question, favored American claims, 240
- Baker, Rev. Shirley, the Bismarck of Tonga, gives it a constitution, 150; quarrels of, with the Wesleyan Church, 133
- Balclutha*, Australian steamer, 4
- Bank clerks, Chinese and Japanese, 63
- Barnacles on ships' bottoms, removal of, 25
- Baseball popular in Pago Pago, 185
- Beachcombers, the meaning of, 288
- Bears, grizzly, danger of encountering, 250; experience of a prospector and two of his men, 250, 251; the largest fur-bearing animals, 268; black and brown common in southeast and southwest Alaska, *ib.*
- Beavers, castorium obtained from, 251
- Bedford*, British cruiser, changed fuel from coal to oil, 228
- Bensbach River district, Dutch New Guinea, massacre at, 120
- Beverages on board ship, 286
- Big game in Alaska found all over, 268-270; hunters of, must be licensed, 270
- Binghi, native pearl divers, 31
- Bird life of Hawaii, 87, 88
- Birds of Paradise, importation of, prohibited in America and Australia, 296
- "Black-birding" South Sea Island natives, 30; in Pacific islands, 290-294
- Black labor, recruiting for, in Pacific islands, 292
- Bligh, Captain, commander of the *Bounty*, 91; sent adrift for forty-two days, *ib.*; visit of, to Tahiti, 122
- Blomedin, Cape, 9
- "Blood is thicker than water," origin of adage, 37
- Bonanza Creek, famous discovery of gold there, 260
- Botany Bay, Governor Phillip and La Pérouse at, 2
- Boussole*, one of La Pérouse's ships, 2
- Boxer indemnities, 46
- Boxing matches and wrestling favorite sports in Samoa, 186
- Brisbane, capital of Queensland, Australia, population of, 333
- British Columbia, stubbornness of an English surveyor lost the State of Washington to, 26, 27
- Brussard, Pierre, former owner of the Alaskan Treadwell mines, 257
- Burials, strange, 308-310; customs of Siwash Indians, 308; of the Parsees, *ib.*; in New Orleans, *ib.*; at sea, 309
- Burying alive of aged and infirm people by Fijians, 170
- Bush beer orgies in the Cook Islands, 198
- Cab-drivers, confessions of, 67
- Cable incident, a curious, 169
- Cabobau, King of Fiji, adopts Christianity, 161, 162; offers islands to Great Britain, 165; sued by United States for damages, *ib.*; damages paid by the Poly-nesian Company, 166; catches measles, 172
- Cadzow, Dan, celebrated Arctic white fur trader, 252
- California, hospitality of residents of, 17
- Canada's generous ship subsidies, 280
- Canadian fishing industry, litigation and disturbance of, 239
- Canadian Klondyke Company, their contribution to the Government in the World War, 255
- Canadian Northwest Mounted Police, patient pursuit of murderers by, 252
- Canadian Pacific Railway, scenic grandeur along, 24, 25

- Cannibal Islands (Fiji), atrocious reputation of former inhabitants of, 161
- Canton, China, odors of, intolerable, 40; population of, *ib.*; pitiful existence led by inhabitants of, *ib.*; every known disease prevalent in, 42
- Carey, Captain, rescues his boatswain from sharks, 20; experience of, as a whaler, *ib.*; arrives at Apia, Samoa, with the *Moana*, 146
- Caribou, important for hunting because of its food value, 270
- Caroline Islands, an enchanted region of archeology, 90, 91; American commissions sent to, 91; climate of, 322; thirty-six minor groups of islands in the archipelago of, 323; now under Japanese administration, *ib.*
- Carpentaria, effect of storms in the gulf of, on fish, 214; striped fish seen in, *ib.*; catching fish at, by drugging, *ib.*
- Cascade Range, Washington, rainfall on, 27
- Cascara Sagrada for sea-sickness, 286
- Casco, schooner, owned by Robert Louis Stevenson, who wrote many of his stories aboard of, 265; he sailed the Pacific in search of health on her, *ib.*; later engaged in the sealing trade, *ib.*; afterward used by the Boy Sea Scouts as a training ship, *ib.*
- Castor oil for aeroplanes from red bean variety, 286, 287
- Catholic Church, devoted work of priests of, in Fiji, 162
- Caucasian appetite for sport, 273
- Cecile-Rougier Case, 173, 174
- Census, of China, 1913, 45; of seal herds taken in 1874, 266
- Centipedes, danger of, in molesting, 213
- Chevilliard, Sergeant Loraine, officer in the World War, 101
- Chichester, Sir Edward, British Admiral, signalled support of Dewey at Manila Bay, 37
- China, foreign residents in, 45
- Chinese, conditions and customs of, 39; idols of, 41
- Chinese labor, more satisfactory than any other, 291
- Chinese tolerance to America, 52; hatred for England, Japan, France and Germany, *ib.*
- Christianity, in Japan, 49; Japanese zeal for, feigned, *ib.*; appointment of missionaries to Japan, 51; introduced into Fiji, 161
- Christmas Island, discovered by Captain Cook, 1777, 95; sold to Father Rougier, 98
- Circumnavigators' Club, members of, 13, 14
- City of Melbourne, Australian steamer, 4, 5
- Clarke, Sir Rupert, pioneer of Papua, resource and ingenuity of, 119
- Classification of ships at Lloyd's, 234
- Clothing of different weights required by travelers in the tropics, 12
- Clyde shipbuilders, watchfulness of their output, 235
- Coal plentiful in Alaska, 261
- Cocoonut husk and shells source of immense profit to planters, 192; animal and insect enemies of the cocoonut, 193; cocoonut oil trade, *ib.*
- Cold, endurance of, pathetic case in Hazelton, British Columbia, 225
- Collie cattle dogs used for deer ranges, 272
- Commercial radio service between United States and Hawaii, 221
- Communication between Pacific Islands by aeroplanes and wireless, 286, 287
- Condominium, the governing body of New Hebrides, 103
- Conduct at sea, on personal, 283, 284
- Contract laborers in Queensland, government regulation of, 290
- Cook, Captain James, navigated on the Pacific to Australia, 2; in New Hebrides, 104; in New Zealand, 175
- Copper found in gravel like placer gold, 253
- Copra, plentiful in New Hebrides, 106; exports of, from Solomon Islands, 108, 111; Tutuila crop of, marketed by the United States, 157, 158; staple product of the South Sea Islands, 192-194; various by-products of, 192; wrongly blamed for loss of ships by fire,

- 193; market for, controlled in London and San Francisco, 194
 Cormorants, used by Japanese for catching fish, 215
 Corregidor, fortress of, Philippine Islands, 36
 Cosmopolitan appearance of Honolulu, 74
 Cricket (game of) popular in many Pacific islands, 184, 185
 Crocodiles, unique method of trapping, 29
 Crossing the line, ceremonies in connection with, 303
 Custom-house inspectors, duties of, 296-297
Cyphrenes, Australian steamer, 5
- Damien, Father Joseph, devoted his life to Leper Settlement of Molokai, 86; Robert Louis Stevenson's sketch of, *ib.*
 Damon, Mr. S. M., introduces pheasants into Honolulu, 87
 Dancing Geisha girls of Japan, 54
 Daniels, Josephus, Secretary of the U. S. Navy, enforces Prohibition at Pago Pago, 153
 Darling, Ernest Wilfred, the "nature man," finds his Eden in Tahiti, 126; refuses a large fortune, 127
 Dawson, Captain, of the *Ventura*, experience of, in the China Seas on board the *Chingsang*, 155
 Dawson City, a principal mining center, at junction of Yukon and Klondyke rivers, 256; winter temperature of, 256; meat supply in, *ib.*; ice pool of, exciting features of, 305
 Deidrich, Admiral von, manœuvres against Admiral Dewey in Manila Bay, 37
 Dewey, Admiral, experience of, with the commander of the German fleet in Manila Bay, 37
 Diesel engine instead of coal firing, cost of, 229, 230
 Dinner, an expensive, 313
 Distances to and from different Pacific cities, 288; distance the eye can see, 289
 Divers for pearl shells, 29; pay of, small, 28, 31
 Doctors, small salaries of, on Pacific steamers, 16
- Dog racing in Alaska, 273, 274; dangers of, 274; spectators and competitors of, 275; Annual All-Alaska Sweepstake race, the most exciting race in Alaska, 273-276; rich prizes of this race, 276; breeding of race dogs, 277
 Dogs, Alaskan, characteristics and good qualities of, 247
 Dogs, improving the breed of, 276
 Dolphins noted for strength and ferocity, 204
 Drake, Sir Francis, first English navigator on the Pacific, 1
 Dredges used in the Klondyke, cost of, 253; record made by No. 3 Dredge of the Canadian Klondyke Company, 254
 Dressing for dinner on Pacific steamers, 12, 13
 Ducks, a valuable breed of, 237
 Dutch New Guinea, backwardness of, 120
 Dutton, Brother Joseph, manager of Baldwin Home for Boys, Kala-wao, Hawaii, 85
- Easter Island, a tantalizing archeological puzzle, 89; one of the wonders of the world, *ib.*
 Echo-seamanship, 7, 8
 Edwards, Captain, of the *Pandora*, explores Samoa, 136
 Elephantiasis prevalent in most Pacific islands, 16
Elingamite, Pacific steamer, wreck of, 21; salvage of cargo, *ib.*
 Elliott, Henry W., takes census of seal herds, 266
Elsass, German steamer, interned in Pago Pago with \$12,000,000 in gold, 160
 Elviese, Germany, 200 kilowatt station at, 222
 Embassy buildings of United States, 64
 Embezzler, an experienced, 45
 English control of Alaska in 1820, 240
 Equator, interesting fact about the, 15
 Ermine, the gamest and most courageous animal for its size, 269
 Erromanga, submarine volcano of, 190
 Eskimos, treachery of, 252

- Ethnological puzzle of Easter Island, 90
 Eurasians of Hong Kong, experts at invoicing in all languages, 40
 European navigation of the Pacific, 1
 Executioners, bribery by Chinese, 43
 Expansion of Japanese navy and mercantile marine, 65, 66
- Fanning Island, a cable station, 93
 Farallone Islands, 17
 Female slavery in China, 39
 Fiji Islands, 15; the future of, 16; population of, *ib.*; natives of, *ib.*; Christianity introduced into, 161; bravery of missionaries in, 162; large number of islands in the Fiji group, 163; a large number of its inhabitants East Indians, 169; native dances of, 169, 170; religion of inhabitants of, 170; diseases in, 171; share of natives of, in the World War, 173; sugar most important industry, 195
 Fijians, dislike of, for work, 16; passionately fond of cricket matches, 184
 Filipinos, ambition of, 36
 Fire-crackers, Chinese, 33
 Fire-walking in Fiji, 187
 Firemen's Union, rules of, 22, 229
 Fish, effects of change of diet on, 214
 Fish drives in Pacific islands, 213
 Fish stories, strange but true, 204-215
 Fishing, in China and Japan, 215; in Alaska, great sport in any part, 270
 Flying-fish, startling accounts of, 211; how caught, 212
 Fog device to protect steamers on rock-bound coasts, 227
 Food in Japanese hotels, 61
 Football popular in Fiji, Samoa and Tonga, 186
 Foreign property owners and taxes in Japan, 68; contract dealings of, 69
 Foreign residents in China, 45
 Fort Baker, California, 17
 Fortuna, French Pacific island, 16
 Fourth of July in Molokai, 84
 Foxes, Alaskan, method of catching, 248; laws to prevent slaughter of, *ib.*; breeding farms at Caribou, *ib.*; farming of, an uncertain and hazardous occupation, 249; crossing the species, *ib.*; number of whelps, *ib.*; trapping white foxes, *ib.*; Indian methods, *ib.*; feeding of, 250; five varieties of, in Alaska, 269
 Freak radio work in the Tropics, 222
 Freeland, George, Australian hotel owner on Maui Island, 78
 Freight-rates of Japanese, 66
 Friendship of passengers aboard ship, 283
 Fruit, plentiful supply of, in New Hebrides, 106
 Fuel oil for maritime use, 228; how to prevent waste of, *ib.*
 Fundy, Bay of, fogs on, 9
 Funerals in Canton, 42
 Fur-bearing animals, American and Canadian laws to prevent slaughter of, 248; Yukon and Alaska trappers of, 251, 252
 Fur-seal, riches reaped from the rookeries of Alaska, 263; age and weight of, at maturity, 264; systematic conduct of the "harems," *ib.*; wasteful slaughter of, *ib.*; great affection of, for her own offspring, 265
- Galapagos Islands, description of, 154
 Gambier Islands, French possession, 125
 Gambling on dog races in Alaska, 276
 Game-hunting in Alaska, 267
 George II, King of Tonga, death of, 129
 Georgia, Gulf of, navigation of, 7
 German colonial ownership neither progressive nor honorable, 327; failure of their colonization, 343; tyranny of, 344
 German empire in the Pacific the aim of Kaiser William, 343
 German gunboats lost in the great Samoan hurricane, 149
 German New Guinea, large extent of its territory, 342; German hold of, now lost, *ib.*; mountainous formation of, *ib.*; Australian administration of, 344; successful prospecting by Australian miners, 345; German breed of pigs in, 346; great commercial future of, *ib.*

- Geysers of New Zealand, the only ones in the British Empire, 177
- Gibbs, Captain John, of the *Niagara*, 23, 288
- Gilbert Islands, description of, 112-115; missionary work in, 202
- Gill, Rev. William Wyatt, describes the natives' daring actions with sharks, 207
- Glass-bottomed steam launches of Haleiwa, Honolulu, 76
- Gloucester, Cape, New Britain, nest of volcanoes in, 190
- "Godowns," Japanese large storehouses, 62
- Gold discovery in the Yukon territory, in 1895, 240, 259-262; disputes as to ownership of claims, 259, 260
- Great Circle, sailing the, 19
- Greeks, Levantine, in Trobriand Islands, control trade in rare gems, 30
- Greenwich England, standard of time taken from, 231
- Grieve, Summer & Co., owners of Malden Island, 93
- Grimshaw, Beatrice, writer on Pacific subjects, settles in New Guinea, 287
- Grizzly bears common in the interior and coast of Alaska, 268
- Ground rents in Japan, 70-72
- Guam Island, Ladrones, method of catching fish on, 212; ignorance of governor of, in the Spanish War, 213
- Gum digging, a unique New Zealand industry, 181
- Hague Tribunal, decision of, on Japanese taxes on foreigners, 71, 72
- Haleiwa, Honolulu, 76
- Halibut fishing in Ketchikan waters, Alaska, 238; great age of, *ib.*; high wages paid to fishermen, 239
- Hall, H. H., American consul at Sydney, 4
- Ham, Colonel George H., 3
- Hawaiian Islands, romance and beauty of, 73; beautiful skies of, 75; hospitality of the inhabitants, *ib.*; rich crops of, *ib.*; population of, 76
- Hawaiian musicians greet tourists on arrival, 73
- Hawaiian skies always clear, 75
- Hawaiian superstition, samples of, 81-83
- Hayes, "Bully," notorious pirate of the Pacific, 112; the modern buccaneer, 326
- Haynes, American army post in Alaska, 243
- Haynes, John, M.P., Sydney journalist, 6
- Heaney, Michael, Alaskan railroad builder, 244
- Henderson, Robert, recognized by the Canadian Government and pensioned as the first discoverer of gold in the Klondyke, 259, 260
- Hens of Alaska, amusing story of, 237
- Hilo, Hawaii, trip to, 79-81
- Hobart, capital of Tasmania, Australia, population of, 334; celebrated for its fruit, *ib.*
- Hong Kong, an island, not a city, 38; a free port, *ib.*; quarantine inspection in, *ib.*, 43
- Hong Kong and Canton, voyage to, 38-45
- Honolulu, Hawaii, 11; ideal climate of, 12; sport at, 16; voyage to, 22; an American city transplanted, 73; the center point of traffic on the Pacific, 74; mixed races in, *ib.*; commercial radio service to, from Pago Pago, 222
- Hoofed game in Alaska plentiful, 270
- Hospitality, a delightful system of, among prospectors, 255
- Hot Lakes district of New Zealand, wonderful sights of, 190
- Hot Springs of New Zealand, curative effects of, 177, 178
- Houdlette, Captain, of the *Sierra*, 17, 18; driven out of his course by disturbing currents, 19
- Huddart, James, ship owner, 6
- Hula Hula dance in Honolulu, 73
- Hunting grounds of Alaska very plentiful, 270
- Hurricane, the famous Samoa, 145
- Huskies, employment of, for traveling in Alaska, 245; team of, driven by author (see illustration), 245; a cross between a Siberian timber wolf and a dog, *ib.*; part played by, in development of Alaska and Northwest Canada, 246; origin of, *ib.*; characteristics of, *ib.*

- Imperial owned cable, advantages of, 216
- Indemnities, Boxer, 46
- Influenza introduced into Apia with appalling results, 159
- Irrigation far advanced in Japan, 62
- Islands, birth of, 189
- Japan, description of, 53; friendly attitude of the United States to, 59; population of, 62; navy and mercantile marine of, 67; opened up to foreign trade and residence, 69; "Foreign Settlements" of, *ib.*; trade with, now in the ascendancy, 327
- Japanese, independence, incident of, 33; religious puzzles of, 50; hotel keepers' scheme to prevent Prohibition, 53; methods of business, 60; activity of, in China, 65; increase of shipping tonnage, 65, 66; Japanese abroad, 67; colonial methods strikingly energetic, 327; control of trade in the Central Pacific, 328; institute a complete domestic, social, and national upheaval in the Marshall Islands, 329, 330; expansion of, in the Pacific islands, 337
- Japanese Current, change of, 306
- Japanese shipping, costly effects of typhoons encountered by, 34
- Java, population of, 191
- Jette, Sir Louis, Canadian arbitrator in Yukon boundary dispute, decided in favor of America, 240
- Johnston, Lieutenant - Commander Barney L., 8
- Jordan, Professor David Starr, his great knowledge of fish, 213; his experience with a New Zealand skipper, 214; condemns pelagic sealing, 264
- Joy rides on turtles on the Queensland coast, 209 (see illustration)
- Juan de Fuca, Straits of, high tides of, 23
- Judges, corruption of Chinese, 43
- Juneau, capital of Alaska, description of, 242
- Kaiser, William, and Governor Williams, story of, 142
- Kalakaua, king of Hawaii, death of, 81
- Kanakas, deportation of, from Queensland, 290
- Kane, Admiral Sir Henry, commander of the *Calliope* in the great hurricane, 149; heroic conduct of, 149, 150
- Kauri gum, found in North Island, New Zealand, 187, 182; timber of the Kauri tree used for furniture, 182
- Kava, a favorite form of tipple in Samoa, 197; peculiarity of, *ib.*; how produced, 198
- Kennicott, a Western Union telegrapher, Alaska copper mine founded by, 225, 226; started a telegraph line through Behring Strait, 226
- Ketchikan, first port of call in Alaska, 240
- Kidnapping native laborers, 290
- Kilauea Volcano, Hawaii, trip to, 77-81; description of, and facts about, 79, 80
- Killing time on shipboard, 284
- Kimberly, Admiral, in charge of the American squadron in the great Samoan hurricane, 150, 151
- Klondyke, record rush of people to the gold mines to secure fortunes, 261
- Knight, Wade, Texas oilman, in Manila, 35
- Kobe, Japan, description of, 57
- Korea, annexation of, by Japanese, 62
- Kotzebue, Otto von, German explorer in Samoa, 136
- Krakatoa Island, Straits of Sunda, scene of the greatest volcanic eruption ever known, 191
- Kughan, Captain, romance of, 9, 10
- Kusaie, the garden of Micronesia, headquarters of the American Mission in the Western Pacific, 325, 326
- Kyoto, Japan, 57; hard work for women at, 61; canal tunnels in, *ib.*
- Labor troubles in Pacific islands, 159
- Ladies' wardrobes, hints about, on a sea voyage, 13
- La Follette Mail Bill froze out Pacific Mail ships, 61, 62
- Langley, Professor J. F., solves mystery of fire walking, 187

- Laplanders, breeding of reindeer in charge of, 271, 273
- Lele, a mysterious town in the Carolines, 322; covered with valuable timber trees, 326
- Leper settlement of Molokai, 84-86
- Lever Brothers, of Sunlight Soap fame, large exporters of copra, 108, 193
- Limmoria, marine animal, 26
- Living, cost of, on Pacific steamers, 20, 21
- Lloyd's, classification of ships by, 234
- Lopp, W. T., in charge of reindeer business, 272
- Lord Howe Island, a gem of the Pacific, 93; size of, *ib.*
- Luckner, Count Felix Grof von, commander of German raider *See Adler*, captured off Levuka, Fiji, 158
- Lynx, Alaskan, food of, 250
- Magellan, Ferdinand, his navigation of the Pacific, 1
- Mail and passenger steamship service between Australia, New Zealand and America, splendid record of, 5; terms of mail contract, 6
- Mail steamers under Japanese flag, 61
- Mail subsidies to Pacific steamers, 280-282
- Maitai, Australian steamer, wreck of, 6
- Makura, Canadian steamer, 11, 12, 13, 14, 15, 16, 21
- Malamutes, *see* Huskies.
- Malden Island, phosphate deposits of, 93
- Mamea, Pago Pago Chief, 156
- Mamie apple, medicinal qualities of, 196; pepsin obtained from, *ib.*
- Manchuria, Pacific steamer, ashore, 18
- Manila, description of city of, 35, 36
- Manua group of islands, 157
- Maoris, native New Zealanders, 179; strongholds and stockades of, *ib.*; burial customs of, 310
- Marco Polo honored in China, 41
- Mariposa, first deep-sea ship to use fuel oil in the Pacific, 228; wrecked in Wrangell waters, 241, 242
- Marist order of priests in Fiji, supported by a French society, 163
- Marquesas Islands, South Seas, 126
- Marshall Islands, a group of islands to the northwest of the Gilberts, 327; formerly under German control, *ib.*; now controlled by Japanese, 327; thoroughness of Japanese administration in, 328; Japanese trading companies increasing in, 329; subject to severe hurricanes, 331
- Matavanu volcano, Samoa, 189
- Matrimonial affairs in China, 41
- Mauna Kea, highest snow-capped mountains in the Pacific, 79
- Mauna Loa, volcanic outbreak of, in 1880, 82
- Measles in Fiji Islands and South Seas, 171, 172
- Medical missionaries in China, 52
- Medical pointers, 285
- Melanesians described, 295
- Melbourne, capital of Victoria, Australia, 333; best laid out city in the world, *ib.*; rivalry of, with Sydney, *ib.*; population of, *ib.*
- Melville, Rear Admiral George B., U. S. Navy, under his orders battleships were equipped to use fuel oil exclusively, 228
- Mercantile Marine of Japan, 65
- Meridian, 180th, loss of a day crossing, 14; curiosity displayed by passengers in crossing, 14; strange experiences met by traders and captains, 15
- Midnight sun, tourists in search of the, 256, 257
- Midway Island, 18
- Mikado, Australian steamer, 5
- Minas Basin, 9
- Missionaries to Fiji Islands, bravery of, 162, 163; good results of their labors, 163; work of, in Pacific islands, 200-203
- Missionaries to Japan, 51; valuable information obtained from, *ib.*; zeal of, on board ship, 52
- Molokai, leper settlement of, Hawaii, 84
- Moncton, Bay of Fundy, heavy spring tide at, called "the bore," 9
- Money changing in China, 44
- Mongol, Australian steamer, 4, 5
- Mongolia, Pacific Mail steamer, 18; Chinese gambling on, 63

- Mongoose**, exterminating the, 87
Monsoons, interference of, with pearl-fishing, 31
Monumental City, first steamer to Australia, 3
Moose, the largest hoofed animal of North America, 268; best specimens of, on the Kenai Peninsula, *ib.*; easy prey in winter to the hunter, *ib.*
Morea, island of, the paradise of the world, 125
Moresby, Captain, commander of the *Niagara*, 23
Mormon Missionaries in the Pacific, 203
Moses Taylor, San Francisco to Sydney steamer, 4
Mosquitoes of Alaska, 267
Mother-of-pearl, exportation of, to Austria ceased when the World War began, 31; Japanese trade in, 32; pearl farms, *ib.*
Motor trip in Honolulu, 76
Mount Kloit, Java, volcanic eruption at, destroyed 50,000 people in 40 minutes, 191
Moving-picture shows in Molokai, 84
Mulligan, Judge, author of early history of Samoa, 138; extract from, *ib.*
Murray, John Hubert Plunkett, Governor of British New Guinea (Papua), 116
"Musher," a mining prospector, origin of term, 244; remarkable feats of endurance of, 247
Mynah birds of Hawaii, 87

Nagasaki, Japan, description of, 48; a Buddhist temple in, 53; manufactured goods in, 54
Nakiuna, Mrs. Emma, a well-educated Hawaiian lady, 83
Nankin Treaty, difficulties of understanding, 44
Native peculiarities of some Pacific islands, 284, 285
Naura Island, rich phosphate deposits on, 98
Nauru, Marshall Islands, 331
Navigation on the Pacific, 1-10
Navigator Islands, see Samoa
Navy of Japan, 65
Nebraska, San Francisco to Sydney steamer, 4

Nevada, San Francisco to Sydney steamer, 4
New Caledonia, French possession, description of, 100; loyalty of inhabitants of, 101; population of, 102
New Hebrides, description of, 103-107; copra plentiful in, 104; recruiting ground for labor traffic, 105; islands of, 107; volcanoes in, 189, 190
New Guinea, method of fishing by natives of, 215
New Guinea, British, see Papua
New Guinea, Dutch, description and area of, 120, 121
New Guinea, German, see German New Guinea
New South Wales, Australia, population of, 333
New Zealand, description of, 175-183; scenery of, 176; inhabitants great travelers, 182
Niafoou Island, damage done to, by volcanoes, 190
Niagara, Pacific steamer, escape of, from German raider *Wolf*, 23; captains of, *ib.*; takes in large cargo of sugar at Suva, 168; the King's health drunk in ice-water on, 288; patriotic collection for the Red Cross taken up on, 318
Niagara Falls, Japanese travelers at, 67, 68
Noel Bay, tide at, 9
Nome, Alaska, gold found by three Swedes at, 262; gold sluicing at (see illustration), 262
Nome Kennel Club, founded by lawyer Albert Fink, 276
Norfolk Island, discovered by Captain Cook, 92; a convict island, *ib.*; transformation of, *ib.*
North Island, the show place of New Zealand, 176, 177
Nurnberg, German cruiser, destroys the Fanning Island Cable station, 94

Oahu, Honolulu, motor trip around the island of, 76; station of Federal Telegraph Company at, 221
Ocean currents dangerous for betting purposes, 306
Ocean Island, great wealth of phosphate deposits on, 97

- Ohio River, navigation dangers on, 10
- Oil or coal for ship fuel, 228-230; difference in cost of, 229; saving made per annum, 230
- Olosenga, submarine volcano, Samoa, 189
- Opium smuggling on Pacific steamers, noted case of, 297, 298
- Oranges, immense size of, in New Hebrides, 106
- Osaka, Japan, preponderance of Germans in, 57
- Pacific Cable, completed 1902, 216; obstacles encountered, *ib.*; progress of traffic handled, *ib.*; cost of maintenance of, 218; reduction of rates of, 217
- Pacific Coast, advantages of, for navigators, 8, 9; of the Northwest, 23-27
- Pacific Island homes, 287
- Pacific Island races, 295
- Pacific Islanders, exchange of language, ideas and customs of, 1; elopement of native girl to Apia, *ib.*; weakness of, for exploiting wrecks, 96; in the World War, 201
- Pacific Islands should be better known, 287; ample food supply in, *ib.*; a Paradise for rest, *ib.*; inducements for settlers, *ib.*
- Pacific Mail Steamship Company, small subsidy to the, by United States Government, 61
- Pacific Ocean, navigation on the, 1-10; voyages across the, 11-47
- Pacific trips, 319; popular lines of travel, *ib.*; living on board a Japanese steamer, 320
- Pago Pago, Tutuila Island, 138; the only American possession south of the equator, 152; beautiful harbor of, *ib.*; red-haired ladies popular at, *ib.* Prohibition by decree of Secretary Daniels, reaches Pago Pago, 153; native dances at, 155; exploring expedition from the United States arrives at, 156; Lieutenant Wilkes makes surveys of, *ib.*; United States acquires control of, *ib.*; hidden treasure in, 160; natural phenomena at, 211
- Palms, Kentia, hardiest of all palms, 93
- Palmyra Islands, annexed by the British, 95
- Papaseea, Samoa, tobogganing at, 149
- Papeete, capital of Tahiti, 123
- Papua (British New Guinea), description of, 116-119; the second largest island in the Pacific, 338; extent of, *ib.*; area of, *ib.*; population of, *ib.*; an island paradise of unmatched scenery, 339; climate of, 340; laws of, *ib.*
- Papua boys, ugliness of, 34
- Papuans, description of, 295
- Parkes, Sir Harry, his objection to Japanese high taxes, 70
- Patriotic fervor of Canadians, 255, 256
- Pearl diving, 125
- Pearl-shelling, 29; fleet of, 30; value of the shells, 31; Arabian method of, 32
- Pelagic sealing, the cause of decline in the fur-seal herds, 264; a thing of the past, *ib.*
- Pelew Islands, treatment of natives of, by Germans, 321; description of, 323
- Pelorous Jack, famous porpoise, stories of, 180, 181
- Peninsular and Oriental Steamship service, 6
- Pérouse, Jean François de Galaup, Comte de la, sketch of, 2; his visit to Samoa, 136
- Perseverance Mine of Alaska, richness of, 242
- Perth, capital of Western Australia, population of, 134; chief industry, mining, *ib.*
- Petaluma, largest hen-producing district in America, 17
- Petroleum, crude, used for ship fuel, 230; bases of Pacific and Mexican, *ib.*
- Pheasants in Honolulu, 87
- Philadelphia, first foreign trading ship to Australia, 2
- Philippines, description of the, 35; growth of rice in the, 36; voyage to, 35-38
- Phillip, Arthur, Governor, arrived at Botany Bay, 2
- Phillips, Captain Sid, 11

- Phosphates in Pacific islands, various origins assigned to presence of, 98
- Pigs, abundance of, on Pacific islands, 99
- Pioneer Mining Company, composed of three Swedes, who own the richest mine in Alaska, 262
- Pitcairn Island, home of the mutineers of the *Bounty*, 91; size of, 92
- Poachers, bird, on Pacific islands, 98
- Polar bears, live on the ice-floes of the Arctic Ocean, 268; how to hunt them, *ib.*
- Polygamy among Fijian islanders, 170, 171
- Polynesian pastimes, 184-188
- Polynesians, characteristics of, 295
- Ponape or Ascension, a group of islands in the Caroline archipelago, 325
- Port, quarantine inspection when entering a, 286
- Po-ula, a favorite entertainment in Samoa, 186
- Poulsen system of wireless, 221; radio stations of, 222
- Pribilof Islands, Alaska, home of the fur-seals, 263
- Prince Rupert, Canadian terminus of Grand Trunk Pacific Railway, 237; a real estate boom of 1910 in, 238; great future predicted for, *ib.*
- *Prince Rupert*, Grand Trunk Railroad steamer, 8
- Princess Sophia*, Alaskan steamer, splendid accommodation of, for tourists, 237
- Princeton*, U. S. gunboat, salvaged at Tutuila, 153, 154
- Promised Land—a vision of, 285
- Puget Sound navigation, 7; island scenery of, 11
- Quaint little kingdom, a, 128
- Quarantine inspection when entering a port, 286
- Queensland, a State of Australia, population of, 333; largest sheep and cattle ranches in Australia, *ib.*
- Queensland sugar plantations, pay of laborers on, 290
- Rabaul, capital of German New Guinea, a port of entry, 343; compact completeness of every modern convenience of, *ib.*
- Rabbits of Alaska, change their coat to suit their environment, 269; peculiarities of, *ib.*
- Racing and working dogs, feeding of, 277
- Radio communication, 222
- Radio operators, two required on all ships now, 219
- Rain static disturbances found only in the tropics, 220
- Random notes, 283-289
- Rangitara*, Australian steamer, 4
- Raratonga, the largest of Cook's islands, 6; method of fishing at, 213
- Reform movement in Japan, 57
- Reindeer, breeding of, 271; purchase of, *ib.*; number of herds of, *ib.*; raising for the market, 272; thrive on tundra, *ib.*; a good pack animal, *ib.*; no disease among, *ib.*; a factor in transportation, 273; skins of, used for clothing, *ib.*
- Reindeer industry, the, 271-273
- Reindeer meat, delicious taste of, 271
- Residents in Japan, foreign, 64
- Rice, growth of, in the Philippines, 36
- Rotomahana Lake, New Zealand, weird phenomena of, 179
- Rotorua, North Island, New Zealand, 177; the centre of geyser activity in New Zealand, 190, 191
- Rougier, Father, bought Fanning and Washington islands, 94, 95
- Royal William*, first steamer from Pictou, N. S., to London, 3
- Ruk, a group of seventy islands in the Carolines, 324, 325
- Rule of the road at sea, 233
- Russia, treaty with England about Alaska, 240
- Ruth, Hawaiian princess, stops the lava avalanche of Mauna Loa, 82
- Sailors from whalers find life of luxurious ease among Fijians, 164
- Saint John, N. B., tides of, 9
- Saint Lawrence, Gulf of, fogs and icebergs in, 9

- Saint Louis, Mo., the leading fur center of the world, 266
- St. Louis*, American man-of-war, incident on board of, 23
- Salmon, canneries of Alaska, 238; fisheries, 239
- Salt water navigation, difficulties of, 10
- Samoa (or Navigator Islands), bewitching charm of, 136; German ambitions in, 137, 138; intrigues in, 138; Judge Mulligan's history of, 138-140; a good story of a Chief Magistrate, 142; example of Samoan authorities, 143; primitive life in the interior of, 144; features of romantic history of, 145; splendid physique of the natives, 148; the great hurricane at, 1899, 149; radio stations at, 221
- Samoan scenery, gorgeousness and magnificence of, 148
- Samoans, courage of, and valuable assistance rendered the U. S. S. *Trenton*, by, in the great Samoan hurricane, 150; cricket matches popular among, 185
- Sandalwood, various uses for, 194
- San Francisco to Sydney steamers, 4; a long voyage, 5, 17-21
- Santo Island, the largest of the New Hebrides group, 107
- Savaii, Samoa, active volcano of, 139, 189
- Savannah*, first steamship to cross the Atlantic, sketch of, 3
- Sayings, China full of old, 45
- Science and Christianity in Japan, 51
- Sea scapes, 285
- Seal fur-bearers, public condemnation at slaughter of, 264
- Seal-fur market controlled by London previous to the World War, 266; *St. Louis*, Mo., now the leading fur center of the world, *ib.*
- Seals in Behring Sea, 263-266
- Sealskin coats, constant demand for on the London market, 266
- Seaman's Union of New Zealand, anecdote of, 15
- Sea-sickness, no danger of, in Alaskan waters, 237
- Sea-sickness, remedies for, 285
- Seattle, Wash., description of, 25
- See Adler*, German raider, wrecked on Mophea Island, 158
- Service, Robert, poet, immortalizes the Klondyke, 261; author of "Parson's Son," a description of life in the Klondyke in early days, *ib.*
- Seward, William Henry, United States Secretary of State criticised for the purchase of Alaska, 278-279
- Seymour Narrows, British Columbia, difficult navigation of, 236
- Shameen, home of the different consuls in Canton, 41
- Shark-fishing a national holiday with Maoris, 208
- Shark and turtle on Tutuila, ceremony of calling the, 210
- Sharks, a big school of, 20; big trade in fins of, 32; infest waters round Fanning Island, 94; how caught, 206; sleep in coral caves, *ib.*; soothed by gentle massage, 207; daring action of shark killers, *ib.*; how cooked, 208; ferocious habits of, *ib.*
- Shenandoah*, Confederate privateer, cruise of the, 311-313; damage of, to American shipping, 312; captures thirty-eight U. S. vessels, 313; handed over to the United States consul, *ib.*; welcome accorded to, in Australia, 314
- Sherman*, American transport, ashore, 18
- Shimonoseki, Japan, Straits of, 57
- Shintoism in Japan, 50
- Ship mail subsidies, 280-282
- Siberian dogs, endurance of, in racing, 277
- Sierra*, Pacific steamer, 17
- Silk, the first idea of watered, from Alaskan rivers, 237
- Singing popular in Tonga and Samoa, 186
- Sirius*, first steamer from London to New York, 3
- Siva*, a popular dance in Samoa, 186
- Siwash Indians, a source of wonder to tourists, 239; a missionary story of, 239, 240
- Skagway, Alaska, terminal point for several lines of steamers, 243; beautiful flowers grown in the open, 243; vegetation of, *ib.*
- Skeena River, British Columbia, navigable for 130 miles, 238
- Smuggling, in Pacific ports, 296-298; an amusing case of, 297; a fine art, *ib.*; ramifications of, *ib.*

- Snakes, absence of, in Hawaiian Islands, 87; no poisonous ones on any Pacific island, 88
- Socialism in practice, 128
- Solomon Islands, description of, 108-111; rapid progress of, 108; British and German portions of, 109; climate of, 110
- Sonoma, notes of voyage on, 17, 18
- Southern Cross, visibility of, 15
- Spinks, Captain, Sydney marine adjuster, 235
- Sponges, value of, 29
- Stanmore, Lord (Sir Arthur Gordon), first governor of Fiji Islands, 167
- Static disturbances varies in winter and summer, 220
- Steamship companies subsidized for carrying the mail, 280-282
- Steel, Dr., of Sydney, his description of the lighthouse of the Southern Isles, 107
- Steinberger, Colonel A. B., appointed by General Grant as special agent to Savaii, 139
- Sternberger, an adventurer, sets up as king of Pago Pago, 156; arrested and deported to the United States, *ib.*
- Stevens, Captain, commander of the *Barracouta*, arrives at Pago Pago, arrests and deports the adventurer Sternberger, 156
- Stevenson, Robert Louis, description of Lord Howe Island by, 93; opinion of fertility of Solomon Islands, 108; account of his life at Samoa, 28, 145-147; death and burial of, 146; reverence paid him by the natives, *ib.*
- Stewards, ship, add to passengers' comfort, 299; loyal to each other, *ib.*; responsibility of chief stewards, 299, 300; migratory, 300; devotion of, in cases of shipwreck, *ib.*
- Stewardesses, value of their services on a long voyage, 300
- Stone images of Easter Island, 89, 90
- Story of "Bully" Hayes, the, 347-350
- Submarine signals to protect steamers in foggy weather invented, 227
- Submarine volcanoes, 189, 190
- Subsidies paid to steamship companies for carrying mail, 281, 282
- Sugar planting industry in Fiji Islands, 195; Colonial Sugar Company principal refiners in Fiji, 195
- Sunsets on board ship, 285
- Suva, capital of Fiji Islands, 15, 16, 22, 163; description of, 167; land values high in, 168; cricket matches popular in, 184
- Swedish fishermen of Alaska, great spreeds of, 238
- Sweepstakes at sea, 301-304; as popular as horse-racing, 301; decimal sweeps, 302; an interrupted auction, 303; originality in, welcome, *ib.*
- Swordfish saves a leaking ship from sinking, 155
- Sydney, capital of New South Wales, terminal port of European steamer lines, 333; picturesque surroundings of, *ib.*
- Sydney-Auckland Cable, its value of service to and from Australia, 216; route of the cable, 217; depths of bed of ocean from Brisbane to Norfolk Island and other places, *ib.*; made immune from attacks by teredos, *ib.*
- Sydney to San Francisco, mail route established, 3, 4; to Vancouver, voyage of, 21-23; to Canton, 27-35
- Tahiti, Society Islands, 3, 87; beauty of, 122; description of, 122-127; varieties of beautiful fish on, 213
- Taku Glacier, Alaska, beauty of scenery of, 243
- Tangi, Maori, lamentation ceremony at death of a chief, 180
- Tanana River, Alaska, rich gold mines discovered on, 261; celebrated hot mineral springs near, 262
- Tartar*, Australian steamer, 4
- Tasman, Abel Janszen, discovered Fiji Islands, 163
- Tattnal, Josiah, Commodore, U. S. Navy, assists the British Admiral Hope in Chinese waters, 37
- Tattooing, Maoris adepts at, 179
- Tauna Volcano, "Great lighthouse of the Southern Isles," 190
- Tavinuna, trader's and merchant's club at, 22

- Tea-growing in Fiji, 195
 Telegraphers and linesmen of the Canadian North, heroic life of, 225
 Telegraphic service in Alaska and Yukon Territory, 219
 Telephones in Honolulu, multiplicity of, 74
 Temperature at bottom of sea, at depth of 2,500 fathoms, 217
 Teredo, marine animal, 26; cables made immune from attacks of, 217
 Thermal activity in New Zealand, 190, 191
 Three Kings, Islands of, wreck on, 21; worst lighted coast in the world, 22
 Thursday Island, fishing for trepang and water-cucumber on, 28; mixed natives of, *ib.*; pearl shops on, 32
 Tides on the Pacific Coast, 9; at Broome, Honan, and Chepstow, *ib.*
 Time, explanation of difference in, 231, 232; Greenwich, England, standard of, 231
 Tipple, favorite forms of, among Pacific islanders, 197, 198
 Tofua Island, volcano on, 190
 Tokelau, island of, 1
 Tokyo, Japan, up-to-date buildings in, 58
 Tolstoi Island, Russia, covered with bleached bones of seal pups, 265
 Tonga, kingdom of the Pacific, 3; great tombs of, 90; description of, 128-135; government of, 128; revenues of, 129; neutrality of, 129, 130; the king of, 131; no poverty in, 132; British navy introduces cricket matches in, 185; noted for volcanic activity, 190
 Tonnage of ships, in Great Britain, 234; registered, *ib.*; in American mercantile marine, *ib.*; net, *ib.*
 Torres Straits, ugliness of natives of, 34
 Totem poles of Alert Bay, Alaska, largest collection of, in North America, 237
 Trade Winds, relief of, in hot weather, 12
 Traders in Pacific islands a much maligned class, 162
 Trask, Captain, 17; his seamanship tested, 18; good luck of, in saving a ship, 154; goes to relief of steamer *Jacox*, 158; his experience with a flying-fish, 211
 Travel, beneficial effects of, 284
 Treadwell Gold Mines, on Douglas Island, Alaska, large number of men employed in, 257; equipment of, and various attractions for employees, *ib.*; a disastrous cave-in, 258
 Trobriand Island, rare gems found on, 30; mode of diving on, *ib.*
 Trochus shell, value of, 31
 Tropical fruits in Fiji, 195
 Tropical heat, misapprehensions about, 12
 Tropics, dress of passengers through the, 12; radio conditions in the, 221
 Tuberculosis in New Hebrides, 105
 Tuckerton, New Jersey, Poulsen radio station at, 222
 Turtles, habits and haunts of, 208, 209; turtle races, 209
 Tutu nut, used for catching fish, 212
 Tutuila Island, description of, 152; a clever feat of salvage performed at, 153; no public lands in, 156; Young, an Englishman adopted by the natives of, married the king's daughter, 157
 Twitchell, Dr., Anglican Bishop of Polynesia, at Suva, 163
 Typhoons, description of, 34
- Ulupalakua Ranch, at Lahaina, immense size of, 78
 Uluthi or Mackenzie group of islands, 324
 Union Steamship Company, property of, in Suva, 168
 United States Naval Liquid Fuel Board, tests made by, to ascertain best method of using oil, 228
 United States Signal Corps, heroic deeds by, 224
- Vaccination in China, 42
 Valparaiso earthquake, far-reaching effects of, 19
 Vancouver, British Columbia, a pretty marine city, 24; natural water-power of, *ib.*; Pacific terminus of the Canadian Pacific Railway, 24
 Vancouver to Auckland, voyage of, 11

- Vandalia*, U. S. corvette, wrecked, with loss of life, in the great Samoan hurricane, 149
- Vegetation, prolific, in Skagway, Alaska, 243
- Ventura*, Sydney steamer, equipped with Poulsen radio system, 222
- Victoria, British Columbia, 11; population of, 23; delightful climate of, 24
- Victoria, Hong Kong, description of, 39
- Vila Harbor, New Hebrides, beauty of, 103; a commercial center, *ib.*; a thoroughly French settlement, *ib.*
- Volcanoes in the Tonga group of Pacific islands, 134; in other groups, 189-191
- Voyages across the Pacific, 11-47; Vancouver to Auckland, 11-17; San Francisco to Sydney, 17-21; Sydney to Vancouver, 21-23; the Pacific Coast of the Northwest, 23-27; Sydney to Canton, 27-35; to the Philippines, 35-38; Hong Kong and Canton, 38-45
- Waddell, Captain, commander of Confederate man-of-war *Shenandoah*, 311, 312
- Want, the Hon. Jack, story of, 16
- Washington Island, sold to a missionary, 94, 95
- Weird phenomena, 189
- Wellington, capital of New Zealand, 3
- Whale cure for rheumatism, 205
- Whale hunting, 204
- Whales, catching of, in nets by New Zealanders, 181
- White Island, New Zealand, active volcanoes in, 191
- White Pass, Alaska, boundary line between United States and Canada, 244
- White Pass and Yukon Railway, construction of, 244
- Whitford, Arthur, Australian pilot to Admiral Dewey, 37
- Wilkes, Commander Charles, made surveys in Samoa, 1839, 156; his elaborate account of Fiji, 164
- Williams, John, celebrated missionary in Samoa, 136
- Wireless cable service, 219-223; newspapers published on board ship from news obtained by wireless, *ib.*; wireless signals better at night than in daytime, 220; Pacific islands well supplied with radio stations, 221
- Wireless stations in the Pacific Ocean, 223, 287
- Wolf, German raider, escape of *Niagara* from, 23; steamer *Matunga* sunk by, 33
- Wolf dogs a menace to reindeer herds, 272
- Wolverine, the strongest wild animal of its size, 269
- Woman radio operator, profitable experiment of, 219
- Wonga Wonga*, Australian steamer, 4
- World travelers on the Pacific, 13
- Wrangell, oldest settlement in Alaska, 240; settled by Russians, 241; a great fur market, *ib.*
- Xavier, St. Francis, remarkable success of, in Japan, 48
- Yam, a never failing stand-by food of New Hebrides, 106
- Yap group of islands, near the Pelews, 323
- Yawata Maru*, voyage of author on, to the Philippines, China, and Japan, 27
- Yokohama, Japan, breakwater at, 58; indemnity facts, *ib.*
- Yukon River, length of, 256
- Yukon Telegraph Trail, 225, 226
- Yukon Territory of Canada, 260-262; discovery of gold there, 260
- Yukon Territory, of United States, gold discovered there in 1895, 240; frontier dispute between England and America, *ib.*; Canadian arbitrators decided in favor of America, *ib.*; game plentiful in, 250; trappers of fur-bearing animals in, their methods of obtaining skins, 251, 252; mining in, 253
- Zealandia*, San Francisco steamer, 11

